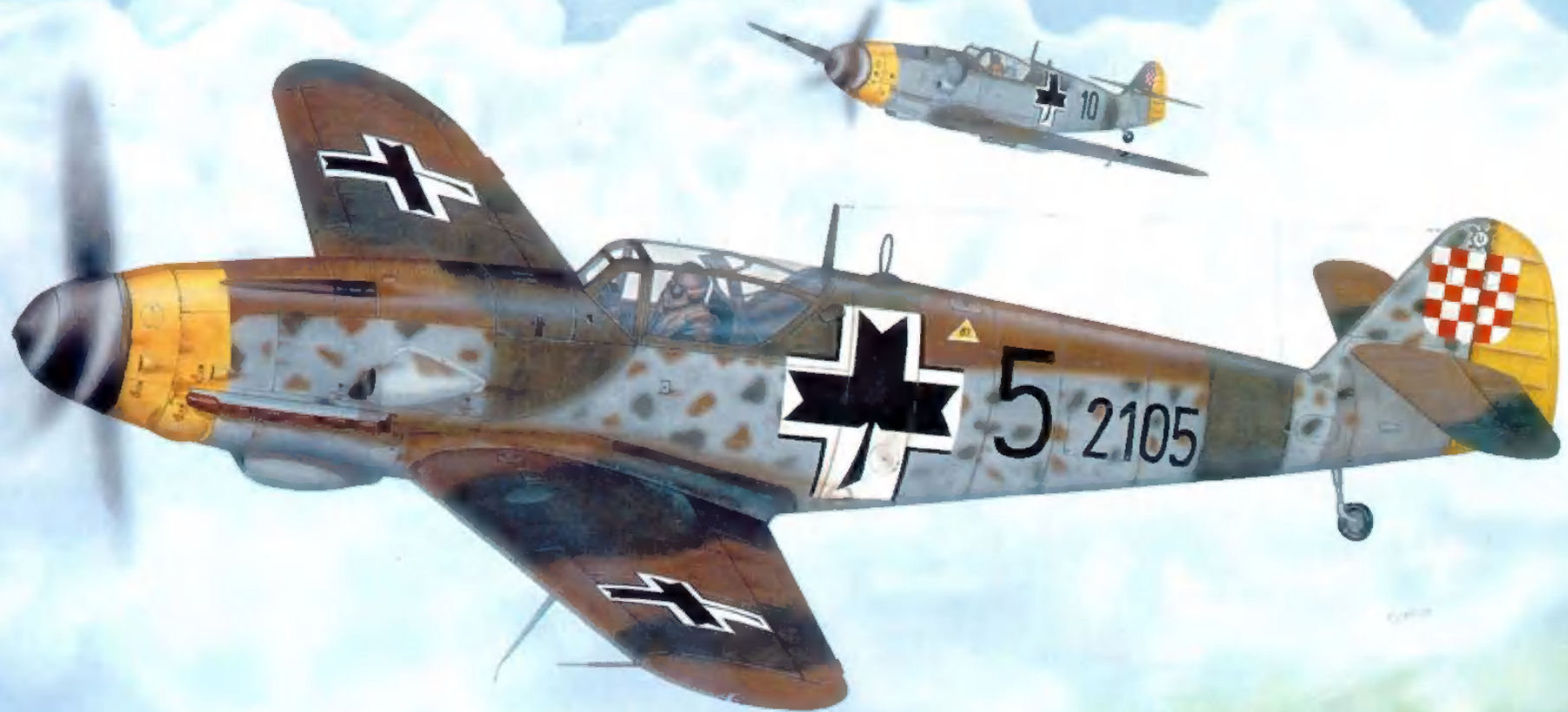


Tihomir Likso – Danko Čanak

HRVATSKO RATNO ZRAKOPLOVSTVO U DRUGOME SVJETSKOM RATU



THE CROATIAN AIR FORCE IN THE SECOND WORLD WAR

COMPLETE ENGLISH
TRANSLATION

Tihomir Likso – Danko Čanak

**HRVATSKO RATNO ZRAKOPLOVSTVO
U DRUGOME SVJETSKOM RATU**

**THE CROATIAN AIR FORCE
IN THE SECOND WORLD WAR**

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Nova Gradiška, 1998.

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NOTE: The following English equivalents are provided to assist in the pronunciation of some distinctive Croatian consonants

C, c: ts, as in flats.

Č, č: ch, as in chairs.

Ć, ć: Similar but softer.

Đ, đ; Dj, dj, Dž, dž: j, as in journey. The Croatian j is always soft and pronounced as the English y.

Š, š: Sh, as in Shabby.

Ž, ž: zh, as in treasure.

UVODNA RIJEČ

Iako vam se listajući ovu knjigu na prvi pogled može činiti da vrlo detaljno opisuje hrvatsko zrakoplovstvo tijekom Drugoga svjetskog rata, autori su svjesni da ona ipak predočuje samo osnovne naznake njegova nastanka, razvoja i djelovanja. Mnogi detalji i događaji još nisu poznati ili dovoljno potvrđeni, a razlog tomu je nedostatak mjerodavne arhivske građe. Poznato je da je velik dio dokumentacije danas u arhivu Vojno-istorijskog instituta u Beogradu, što znači da za hrvatske istraživače nije dostupna.

Imajući na umu tu činjenicu, dokumentacija koju su Hrvatski državni arhiv i Hrvatski povijesni muzej godinama skupljali i sistematizirali, te njemački savezni arhiv, neprocjenljiv je izvor za istraživanje ove teme. Materijal koji je pred vama temeljen je na fondu tih institucija pa autori posebno zahvaljuju njima i njihovim djelatnicima bez čijeg udjela ova knjiga ne bi bila potpuna niti bi ugledala svjetlo dana. Autori zahvaljuju samim sudionicima toga burnog vremena, tj. preživjelim pilotima ili njihovim obiteljima, koji su svojim sjećanjima i svojim fotografijama pridonijeli tiskanju knjige, osobito gospodi Šimi Miletiću, Miljenku Lipovščaku, Ivanu Henču, Đuri Švarcu, Kazimiru Krakaru, Stanku Forkapiću, Roku Miroševcu te gospođama Amaliji Lajtkauf i Zdenki Dubravčić.

Autorima su mnogo pomogli zrakoplovni entuzijasti iz cijele Hrvatske, ustupajući dijelove svoje dokumentarne i fotografske građe. Zahvaljujemo gospodi Tomislavu Aralici, Borisu Gregoriću, Josipu Novaku, Danijelu Frki, Ivanu Ćosiću, Marku Šoletiću, Zdravku Lencu, Dragiši Brašnoviću i Marku Jerasu jer je uz njihovu pomoć dokumentacija autora obogaćena, a knjiga dodatno ilustrirana.

Svjesni smo da su pogreške u opisivanju nekih činjenica ili događaja moguće, pa prihvaćamo svaku kritiku koja će pridonijeti njihovu točnijem i detaljnijem objašnjenju.

Nakon ovog izdanja autori planiraju nove publikacije u kojima će biti riječi o hrvatskim zrakoplovcima u pionirskom dobu zrakoplovstva, o njihovu sudjelovanju u Prvome svjetskom ratu, partizanskom zrakoplovstvu i u novoj Jugoslaviji, a posebno detaljno u vremenu Domovinskog rata od 1991. do 1997. godine.

Pozivamo sve zaljubljenike u zrakoplovstvo da nam se jave sa svojim podacima o temi koja je obrađena u ovoj knjizi, kao i materijalima koji se mogu iskoristiti u planiranim izdanjima.

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HRVATSKO RATNO ZRAKOPLOVSTVO U DRUGOME SVJETSKOM RATU

Više od pedeset godina mnoge činjenice i događaji iz hrvatske prošlosti sustavno su se prikrivale i zaboravljale. No, kako povijest nije moguće sakriti, mnoge od tih "tabu tema" izlaze na površinu, postaju dostupne javnosti i objektivnom sudu.

Hrvatsko ratno zrakoplovstvo u Drugome svjetskom ratu dosad je, praktično, neistraženo područje, iako je postojalo i djelovalo tijekom svih pet ratnih godina. U njegovu je sastavu bilo više od četiri stotine najrazličitijih letjelica, od beznadno zastarjelih dvokrilaca do najmodernijih lovaca. Ovaj rad je samo mali pokušaj rasvijetljavanja hrvatske zrakoplovne povijesti u burnom vremenu Drugoga svjetskog rata, iako njezini začeci sežu i u pionirsko doba zrakoplovstva. Za bolje razumijevanje nastanka i razvitka hrvatskih zračnih snaga valja se vratiti u Kraljevinu Jugoslaviju jer je ona, u početnom razdoblju, bila izvor nabavke znatnog broja hrvatskih letjelica.

Vojni je vrh te države početkom 1938. godine shvatio da je novi veliki rat neizbježan, te je pokrenuo užurbani program prenaoružavanja, odnosno moderniziranja zračnih snaga. Nedostatak suvremenih letjelica, te uopće nedovoljan broj borbenih zrakoplova, bio je očit. Uoči početka rata uspjelo se nabaviti nešto modernih bombardera i lovaca, a u domaćim se tvornicama pokrenula licencna proizvodnja nekoliko tipova zrakoplova. Zrakoplovi su se nabavljali u Engleskoj, Italiji i Njemačkoj, što je bitno otežavalo opskrbu pričuvnim dijelovima i ubojnim sredstvima. Iako je ukupan broj od gotovo tisuću letjelica bio impresivan, od toga ih je približno samo 420 bilo borbenih. U svemu tome najvrednije je bilo gotovo 160 bombardera tipa: Savoia-Marchetti S.79, Dornier Do 17 K i Bristol Blenheim Mk I. Lovačke eskadrile, osim manjeg broja modernih domaćih lovaca Ikarus IK-3, koristile su Messerschmitt Bf 109 E-3, te Hawker Hurricane Mk I. Najveći dio letjelica činili su dvokrilni Potezi XXV i Bregueti XIX. U izvidničkim i školskim postrojbama također se nalazio određeni broj modernih letjelica - Bf 108, Fi 156, Bü 131, ...

Kraljevina Jugoslavija je 25. ožujka 1941. pristupila Trojnom paktu, ali samo dva dana poslije, general zrakoplovstva Simović državnim udarom uklanja vladu Cvetković-Maček, koja se priklonila silama Osovine. Zbog tih događaja, njemačko zapovjedništvo odlučuje prije napada na Sovjetski Savez definitivno okupirati Jugoslaviju i stvoriti sigurno zaleđe za daljnje operacije. U rano jutro, 6. travnja 1941. Luftwaffe napada većinu uzletišta na jugoslavenskom ozemlju, od Slovenije i

THE CROATIAN AIR FORCE IN THE SECOND WORLD WAR

For over fifty years many facts and events of Croatia's past have been systematically disguised and forgotten. However, since it is impossible to hide history, many of these "taboo subjects" are now surfacing and becoming available to the public and to objective judgement.

The Croatian Air Force in World War II is so far a practically unexplored area, although it existed and was active during all five years of the war. In its composition, there were over four hundred various aircraft, from hopelessly obsolete biplanes, to the most modern fighters. This work is just a small attempt at shedding some light on the history of Croatian aviation in the troubled times of World War II, although its origins date back to the pioneering era of aviation. In order to better understand the formation and development of the Croatian Air Force, one must go back to the Kingdom of Yugoslavia, because it was the initial source of acquisition for a significant number of Croatian aircraft.

At the beginning of 1938, this country's military leadership realised that a new great war was inevitable, and so initiated a hurried programme of re-armament, i.e. a modernisation of the Air Force. A lack of modern aircraft and a generally insufficient number of fighter aircraft was obvious. Before the beginning of the war, some modern bombers and fighters were acquired and the licensed production of several aircraft types began in domestic factories. The acquisition was carried out in England, Italy, and Germany, rendering difficult the supply of spare parts and ammunition. Although the total number, of almost a thousand aircraft, was impressive, of that number, only about 420 were combative. The most valuable among them were nearly 160 bomber types: Savoia-Marchetti S.79, Dornier Do 17 K, and Bristol Blenheim Mk I, of the 1st Fighter Squadron. Besides a smaller number of modern domestic Ikarus IK-3 fighters, fighter squadrons used the Messerschmitt Bf 109 E-3 and the Hawker Hurricane Mk I. The largest number of aircraft consisted of Potez XXV biplanes, and Breguet XIX biplanes. In reconnaissance and school formations there was also a certain number of modern aircraft-Bf 108, Fi 156, Bü 131, et al.

The Kingdom of Yugoslavia signed the Tripartite Treaty on 25th March 1941, but only two days later, by a coup d'état, Air Force General Simović overthrew the Cvetković-Maček government that had inclined towards the Axis forces. Due to these

Hrvatske do Makedonije, te u kratkom razdoblju iz uporabe izbacuje većinu letjelica. Istodobno, talijansko je zrakoplovstvo napalo uzletišta i hidrobase u Crnoj Gori i Dalmaciji. U potpunoj pomutnji koja je zavladała u jugoslavenskim redovima, veliki dio letjelica i nije uključen u borbe, a s određenim se brojem pokušalo preletjeti u druge zemlje, što su neke i uspjele (S. 79 u Sovjetski Savez, Do 22 i SIM XIV, u Egipt, Do 17 K, Bf 108, Potez XXV, ... u Grčku). Nakon brze kapitulacije Kraljevine, pobjednici su na uzletištima zatekli velik broj najrazličitijih zrakoplova, ispravnih ili neispravnih. Samo na dijelu područja Jugoslavije koji su zaposjeli Talijani, pronađeno je više od 140 letjelica. Nijemci su najvrednije zrakoplove, uglavnom vlastite proizvodnje, vratili u svoj posjed (tip Bf 109, Bf 108, Bü 131, Fi 156). Ostatak je podijeljen savezničkim zemljama – Bugarskoj, Rumunjskoj, Mađarskoj i Hrvatskoj.

Na područjima tadašnje Jugoslavije, pretežito naseljenim hrvatskim pučanstvom, koja je i prije njemačkog napada bila razdirana nacionalnim i socijalnim suprotnostima, 10. travnja 1941. proglašena je Nezavisna Država Hrvatska (u daljnjem tekstu NDH), s poglavnikom dr. Antom Pavelićem na čelu.

U samom početku stvaranja institucija nove države, pristupilo se osnivanju oružanih snaga u svim vidovima, pa tako i vojnog zrakoplovstva. Kao nadnevak njegova ustrojavanja može se smatrati 19. travnja 1941, kada je Poglavnikovim rješenjem osnovano Predsjedništvo i sedam odjela. Zapovjednikom Odjela zračnih snaga imenovan je pukovnik Vladimir Kren. Neposredno prije njemačkog napada, taj časnik jugoslavenskog zrakoplovstva Potezom XXV prelijeće u Austriju (Graz) i stavlja se na raspolaganje njemačkoj vojsci. Upravo je taj Potez postao prvi zrakoplov zračnih snaga Hrvatske. Sa sobom je ponio najstrože čuvane vojne šifre i planove uzletišta triju banovina tadašnje Jugoslavije (Hrvatske, Vrbanske, Dravske) te godinama pripremane sustave obrane pojedinih uzletišta, osobito zagrebačkog kod Velike Gorice. Pilotima i ostalom zrakoplovnom kadru hrvatskog podrijetla ponuđena je rehabilitacija, te oni masovno pristupaju novoosnovanom zrakoplovstvu. Naredbom Zapovjedništva Odjela zračnih snaga od 21. travnja 1941, propisan je privremeni ustrojstveni sastav Odjela. Sastojao se od Zapovjedništva i osam odsjeka. Glavari odsjeka imenovani su 22. i 23. travnja 1941. Dobili su vrlo široke ovlasti u primanju časnika i dočasnika, prikupljanju letačkog i drugog materijala, te ustrojstvu postrojba za zaštitu uzletišta. Istodobno s popunom zapovjedništava i stožera zrakoplovnih luka, izrađuje se program formiranja zračnih snaga, koji se dostavlja Zapovjedništvu vojske i Ministarstvu domobranstva. Iz toga se može vidjeti da su djelatnosti prije svega usmjerene na osnivanje stalnih zrakoplovnih luka (Zagreb, Sarajevo, Mostar, Zemun), te pomoćnih i dopunskih službi u njima. To je bio preduvjet osnivanju

events, prior to attacking the Soviet Union, the German Command decided to occupy Yugoslavia and create a safe backing for further operations. In the early morning of 6th April 1941, the Luftwaffe attacked most airfields on Yugoslav territory, from Slovenia and Croatia, to Macedonia, and after a short period, disabled most of the aircraft. Simultaneously, the Italian Air Force attacked the airfields and hydro bases in Montenegro and Dalmatia. In the total confusion that spread among the Yugoslav ranks, many aircraft did not even engage in the fighting, while attempts were made to fly a certain number of aircraft out to other countries, and some were successful (one S. 79 to the Soviet Union, one Do 22 and one SIM XIV to Egypt, and one Potez XXV to Greece). After the quick capitulation of the Kingdom, the victors came across a significant number of the most varied aircraft on its airfields, in both working order and damaged. In the part of Yugoslavia occupied by the Italians alone, more than 140 aircraft were found. The Germans repossessed the most valuable aircraft, most of which, had been produced by them. The rest were divided among the Axis countries of Bulgaria, Romania, Hungary, and Croatia.

On what was then the territory of Yugoslavia, in the region inhabited mostly by Croats, and which had suffered from both intra-national and social divisiveness even before the German attack, the Independent State of Croatia, or "Nezavisna Država Hrvatska" (NDH), was declared on 10th April 1941, under the leadership of the *Poglavnik* (Leader) Dr. Ante Pavelić.

At the very start of forming the new country's institutions, the establishment of the armed forces was initiated in all aspects, including the Air Force. 19th April 1941 can be regarded as the day of its formation, when the Presidency and seven departments were established by the *Poglavnik's* order. Colonel Vladimir Kren was appointed Commander of the Department of the Air Force. Just before the German assault, this officer of the Yugoslav Air Force had deserted to Austria (Graz) in a Potez XXV, and placed himself at the German military's disposal. This very Potez became the first aircraft of the Croatian Air Force. He took with him, the most top secret military codes and plans of airfields of the three *Banovina's* (provinces) of the then Yugoslavia (Hrvatska, Vrbaska, Dravska), together with the systems of defence for individual airfields, especially Zagreb airfield near Velika Gorica; the construction of which had taken several years. Pilots and other aviation personnel of Croatian origin were offered rehabilitation, and they joined the newly established Air Force in massive numbers. Following an order by the Command of the Department of the Air Force of 21st April 1941, the temporary organisational structure of the Department was regulated. It consisted of the Command and eight sections. On 22nd and 23rd



letačkih jedinica. Ovisno o tadašnjim prilikama, za početak je planirano osnivanje najnužnijeg broja izvidničkih jata, koja bi se koristila i za zadatke veze. Tek nakon njih osnovala bi se lovačka jata i, na kraju, bombarderska. Predviđeno je ustrojavaње jedne izvidničke i jedne lovačke skupine, te dviju bombarderskih, s tim da bi svaka skupina imala po tri jata, a svako jato po devet zrakoplova. Postrojbe su se trebale organizirati postupno u skladu s raspoloživim kadrom i letjelicama. Osim letačkih postrojba, planiralo se osnivanje škola i ustanova koje su zrakoplovstvu nužne.

Jedriličarstvu se obraća posebna pozornost, jer je predviđeno osnivanje sedam jedriličarskih škola. Središnje zrakoplovno skladište bilo bi u Zagrebu, a na cijelom području Hrvatske opremilo bi se 107 meteoroloških postaja. Uz Program formiranja zračnih snaga, sastavljen je i detaljan Plan i predračun potrebnog zrakoplovnog materijala, od samih letjelica i njihova naoružanja, pričuvnih dijelova, goriva, aerodromske infrastrukture (vozni park, reflektori, alati...), radioopreme, fotoopreme i telefonske opreme, pa do namještaja u zgradama i sitnog inventara. Plan je temeljen na pretpostavci da postoje tri stalne zrakoplovne luke.

Iako je u Programu formiranja zračnih snaga od 13. svibnja planirano da svaka skupina ima tri jata sa po devet zrakoplova, u Planu i predračunu od 23. svibnja sredstva su predviđena za manji broj zrakoplova. Za izvidničku skupinu predviđene su 22 letjelice Fi 156 s 15 kamera za zračno snimanje. Lovna skupina je, osim 22 zrakoplova Bf 109 E, trebala dobiti i tri Ju 52 za prijevoz osoblja i opreme. Dvije bombarderske skupine bile bi opremljene sa po 22 letjelice Ju 87 i Ju 88 uz 6 Ju 52.

U Plan je uključeno i 140 zrakoplovnih topova te 300 strojnica, s pripadajućim streljivom. Posebnu stavku činile su bombe raznih težina. Predviđena je nabavka 200 padobrana i isto toliko letačkih kombinezona.

Za pilotske škole osiguralo bi se 50-ak različitih zrakoplova od kojih su 15-ak trebali biti lovci starijih tipova, koji bi služili za nastavu zračne borbe. Jedriličarske škole bi dobile 224 jedrilice različitih modela za početnu i naprednu nastavu.

Podaci o tim nabavkama bili su vrlo zahtjevni, jer je tražena vrhunska oprema koje ni Njemačka u to vrijeme nije imala dovoljno. Toga je bilo svjesno i Zapovjedništvo zračnih snaga, te je zatražilo izradu i alternativnog plana, s najnužnijim brojem i količinom materijala za slučaj da Njemačka ne bude voljna isporučiti prvo-bitno tražene letjelice i opremu.

U početnom razdoblju preporučeno je osnivanje manjeg broja letačkih postrojba kojih bi mirnodopski sastav odgovarao ratnom. Samo za pomoćne i dopunske postrojbe u tom razdoblju dopušta se osnivanje s 50 – 75 posto efektivna

April 1941, the heads of sections were appointed and received very broad authorisation for the enrolment of officers and non-commissioned officers, in collecting flying and other materiel, and the organisation of units for the protection of airfields. Simultaneously with the reinforcement of the commands and personnel of air bases, a programme of Air Force formation was developed and delivered to the Military Command and the Ministry of the Home Guard. This shows that activities were primarily aimed at the establishment of permanent air bases (Zagreb, Sarajevo, Mostar, and Zemun), and their auxiliary and supplementary services. This was the prerequisite to establishing flying units. Considering the conditions of that time, it was planned to form just the necessary number of reconnaissance squadrons (*jata*), which would also be used for liaison duties. After these, fighter squadrons would be formed, and finally, bomber squadrons. The establishment of one reconnaissance and one fighter group, and two bomber groups was anticipated, and each group was to have three squadrons, and each squadron, nine aircraft. The formations were to be organised gradually, in accordance with available personnel and aircraft. Apart from the flying units, the establishment of schools and institutions needed to sustain the Air Force was also planned.

Special attention was given to gliding, because the formation of seven glider schools was anticipated. The central aviation storehouse was to be in Zagreb, and 107 meteorological stations were to be equipped on the entire territory of Croatia. In addition to the Programme for the Formation of the Air Forces, a detailed plan and preliminary calculation of necessary aviation materiel was drawn up, ranging from aircraft, arms, spare parts, and fuel, to air base infrastructure (car park, reflectors, tools, etc.), radio, photo, and telephone equipment, furniture in buildings, and other small inventory. The plan was developed assuming the existence of three permanent air bases.

Although each group should have had three squadrons with nine aircraft each, as per the plan in the Programme for the Formation of the Air Force of 13th May, the plan and preliminary funding calculation of 23rd May, only provided for a smaller number of aircraft. For the reconnaissance group, twenty-two Fi 156 aircraft, with fifteen cameras for aerial recording were anticipated. Besides twenty-two Bf 109E aircraft, the fighter group was also to receive three Ju 52s for transporting personnel and equipment. The two bomber groups were to be equipped with twenty-two Ju 87s, twenty-two Ju 88s, and six Ju 52s.

The plan also included 140 aircraft guns and 300 machine-guns with adequate ammunition. A special subsection referred to bombs of various weights. The

predviđenih za ratno vrijeme. U vezi s nabavkom zrakoplovne opreme, odmah je odlučeno da će se nabavljati isključivo u inozemstvu, po mogućnosti u Njemačkoj. Stvaranje domaće zrakoplovne industrije nije predviđeno zbog neekonomičnosti. Iz Hrvatske će se koristiti samo pomoćni i potrošni materijal koji se već proizvodi.

U narednom se razdoblju pokazalo da od plana nije mnogo ostvareno, jer su se tijekom 1941. godine gotovo isključivo koristili zrakoplovi i oprema iz nekadašnjeg jugoslavenskog zrakoplovstva, a tek će poslije uslijediti prve nabavke iz Njemačke i Italije.

Opremanje i uporaba zrakoplovstva 1941. godine

U lipnju 1941. Odjel zračnih snaga postigao je načelan dogovor s njemačkom stranom da će NDH preuzeti veći dio zrakoplova Kraljevine Jugoslavije. Na popisu letjelica koje je trebalo preuzeti bili su ovi tipovi:

- 1 Avia Fokker F.39
- 6 Caproni Ca 310
- 1 Caproni Ca 310 bis
- 2 Ikarusa IK-2
- 6 Avia BH-33 E
- veći broj Bregueta XIX
- 1 Savoia Marchetti S. 79
- 5 Hawker Hurricane Mk I
- 1 Rogožarski R-313
- 5 Bristol Blenheim Mk I
- 1 Hawker Fury
- 22 letjelice raznih tipova.

Neki od tih zrakoplova nikada nisu stigli u Hrvatsku (npr. Hurricanei su ustupljeni Rumunjskoj). Za poslove preuzimanja zrakoplova i druge opreme bio je zadužen bojnik Ivan Pupis. On je zapovijedao skupinom časnika i dočasnika koji su bili smješteni u zgradi bivše Komande Ratne mornarice Kraljevine Jugoslavije u Zemunu. Pomoć im je pružalo i osoblje Tehničkog skladišta u Rumi. Zrakoplove i opremu tražili su na mnogobrojnim uzletištim diljem Srbije. Piloti, koji su stizali iz Zagreba, ispravne su zrakoplove premiještali u Sarajevo. Gorivo su osiguravale njemačke vlasti. Letjelice koje se u kratkom vremenu nisu mogle popraviti demontirale su se u Tehničkom skladištu u Rumi ili na licu mjesta, nakon čega su se željeznicom

acquisition of 200 parachutes, and the same number of flying coveralls, was anticipated.

For the pilot schools, around fifty various aircraft would be provided, and of that number, around fifteen were to be older fighter types that would be used for instruction on aerial battles. The glider schools were to receive 224 gliders of various models for basic and advanced instruction.

The data on this acquisition was very demanding, because top quality equipment was requested, and even Germany did not have enough of it. The Air Force Command was also aware of this, and so requested the drawing up of an alternative plan with only the essential number and quantity of material, in the event of Germany not being willing to fulfil the previous request for aircraft and equipment.

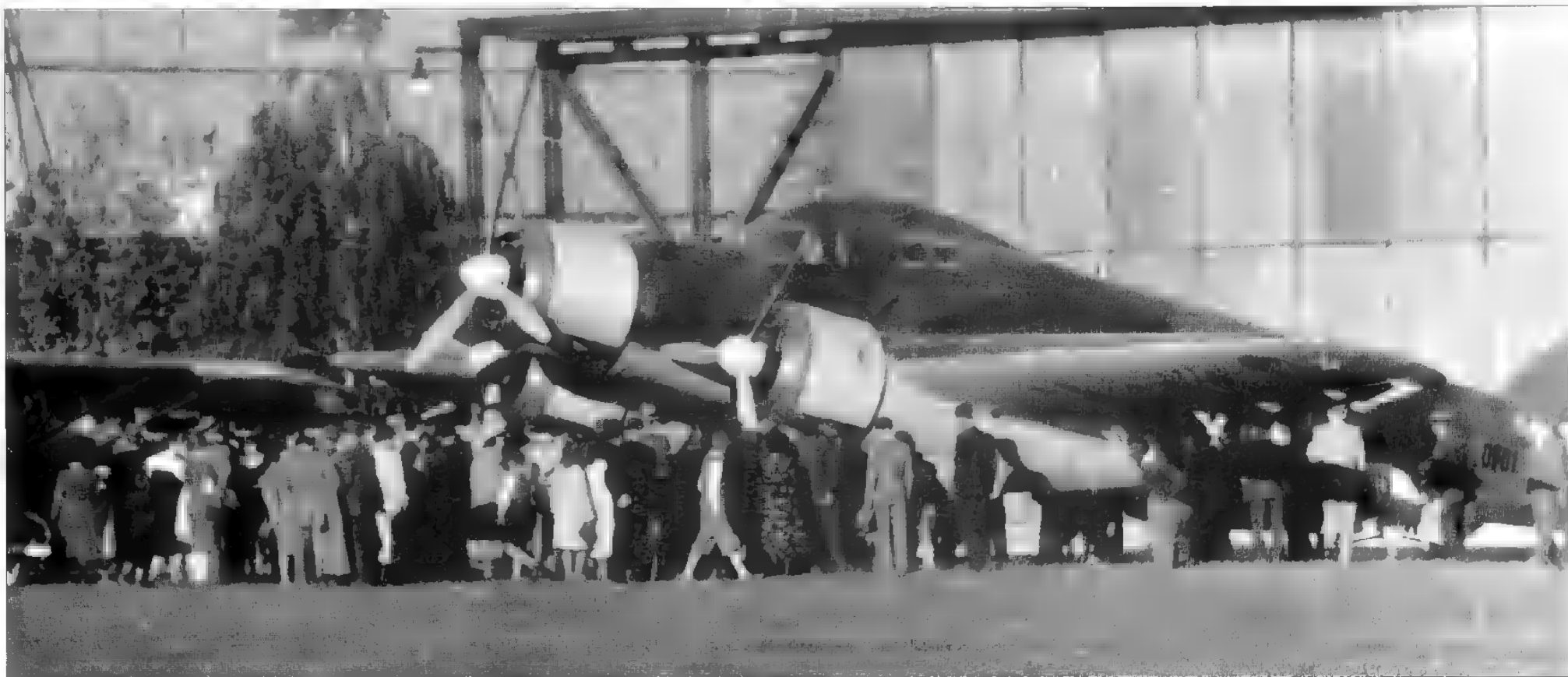
In the initial period, the formation of a smaller number of flying units was recommended; the peacetime structure of which would correspond to the wartime one. Only the auxiliary and supplementary formations in that period were allowed to be formed with 50-75 percent of the effective strength anticipated for war time. Regarding the acquisition of aircraft equipment, it was immediately decided that such would be purchased exclusively abroad, if possible, in Germany. The development of a domestic aircraft industry was not anticipated, as it would not have been economical. From Croatia, only auxiliary and expendable materiel would be used, and was already being produced.

In the following period, it turned out that not much of the plan was realised, because during 1941, use was made almost exclusively, of the aircraft and equipment of the former Yugoslav Air Force; the first acquisitions from Germany and Italy were to come later.

Equipping and Utilisation of the Air Force in 1941

In June, the Department of the Air Force reached a principle agreement with the Germans on the fate (i.e. repossession by Croatia) of a large number of the Kingdom of Yugoslavia's aircraft. The list of aircraft that needed to be repossessed consisted of the following types:

- 1 Avia Fokker F.39
- 6 Caproni Ca 310 s
- 1 Caproni Ca 310 bis



1. Savoia Marchetti S.79, reg. br. 0701. Obratiti pozornost na za sada neidentificirane slovne oznake na donjoj površini krila.

1. Savoia Marchetti S.79, serial no. 0701. Notice the, as yet, unidentified letter markings on the lower wing surface.

otpremala uglavnom u Sarajevo. Prikupljale su se i izrazito oštećene letjelice za koje se znalo da ih nije moguće popraviti, pa su u narednom razdoblju služile kao izvor doknadnih dijelova. U Zemun i Rumu stizala je i druga najrazličitija zrakoplovna i prateća oprema. Većina oštećenih zrakoplova popravljala se u tvornici "Zmaj" i "Ikarus" u Zemunu, "Rogožarskom" u Beogradu i "Državnoj fabrici aeroplana" u Kraljevu. Te su se letjelice popravljale i čuvale čak i u 1943. godini. U tim su se tvornicama čak i završavale manje serije zrakoplova, kojih je proizvodnja prekinuta početkom rata.

- 2 Ikarus IK-2s
- 6 Avia BH-33 Es
- Several Breguet XIXs
- 1 Savoia Marchetti S. 79
- 5 Hawker Hurricane Mk I's
- 1 Rogožarski R-313
- 5 Bristol Blenheim Mk I's
- 1 Hawker Fury
- 22 other aircraft of various types



2. Breguet XIX, reg. br. 4523. Na gornjim površinama krila nisu nacrtane državne oznake.

2. Breguet XIX, serial no. 4523. The state markings had not been applied to the upper wing surfaces.

Privremena skladišta za prikupljanje tehničke građe i streljiva koje je ostalo iz zrakoplovstva bivše Jugoslavije ustrojena su i u Zagrebu, Sopnici, Sarajevu i Bradini. Prema prvim izvješćima s terena, manji broj letjelica zatečen je i na području koje je nadzirala hrvatska vojska. U Mostaru su pronađena četiri Bregueta XIX, u Sarajevu šest zastarjelih zrakoplova, a manji broj i u Banjoj Luci. Na uzletištim u okolici Zagreba također je zatečen određen broj zrakoplova u jačini jednog jata.

Potkraj lipnja broj letačkoga kadra s pratećim zemaljskim osobljem bio je dovoljan da se službeno uspostave dvije zrakoplovne luke – zagrebačka i sarajev-

Some of these aircraft never reached Croatia (e.g. the Hurricanes were ceded to Romania). The task of taking possession of the aircraft and other equipment was the responsibility of Major Ivan Pupis, who commanded a group of officers and non-commissioned officers located in the building of the former "Naval Command of the Kingdom of Yugoslavia", in Zemun. The staff of the technical storehouse in Ruma assisted them. The aircraft and equipment were searched for at numerous airfields across Serbia. The pilots arriving from Zagreb would fly the aircraft that were in working order to Sarajevo. The German Government provided the fuel. The aircraft

ska. Dana 25. lipnja 1941. ustrojeno je Zapovjedništvo Zrakoplovne luke Zagreb, a već 1. srpnja i 1. zrakoplovna luka – Zagreb počinje s djelovanjem. Zrakoplovna luka u Sarajevu je od 26. lipnja pod hrvatskim zapovjedništvom i odmah je uključena u borbene akcije.

Planirana zrakoplovna luka u Zemunu nije nikada službeno osnovana. Odnos Italije prema NDH bitno je otežavao preuzimanje i korištenje mostarske zrakoplovne luke. Još 20. lipnja upućena je molba talijanskom vojnom izaslanstvu u Zagrebu da se aerodrom Mostar, koji je zaposjela talijanska vojska, preda na uporabu hrvatskom zrakoplovstvu. No tom zahtjevu očito nije udovoljeno, jer se u izvješću formalno osnovanog Zapovjedništva 3. zrakoplovne luke – Mostar, od 28. srpnja, navodi da se hrvatsko osoblje preselilo na uzletišta u blizini Gnojnice pokraj Mostara. Zapovjedništvo Zračnih snaga 4. kolovoza izdaje zapovijed da 3. zrakoplovna luka počne s radom 10. kolovoza, što je vjerojatno i učinjeno, ali ne na glavnom mostarskom uzletištu. Tu su se nalazile talijanske, a poslije i njemačke postrojbe, sve do kapitulacije Italije 1943. godine. Talijani su omogućili školovanje hrvatskih pilota u pilotskoj školi u Mostaru. Izobrazba se provodila na zrakoplovima Saiman 200 i 202, te Imam/Romeo Ro-41. Hrvatska su se jata tek od 18. listopada 1943. preselila na glavno uzletišta, ali su i tada tu bile i njemačke postrojbe.

Najviše upotrebljavana zrakoplovna luka tijekom 1941. godine bila je sarajevska. Odmah nakon preuzimanja zapovjedništva nad tom su lukom izvršena prva borbena djelovanja hrvatskog zrakoplovstva. Već 26. i 27. i 28. lipnja s uzletišta Rajlovac poletjela su dva Poteza XXV i jedan Breguet XIX, napadajući partizanske postrojbe u istočnoj Hercegovini. Borba protiv partizanskog pokreta do kraja rata ostat će prvenstvena zadaća Zračnih snaga. U prvim akcijama korišteni su i dvokrilni Fiziri FP. 2, prilagođeni nošenju šest dvanaestkilogramskih bomba. Piloti i izvidnici – strijelci nisu imali padobrane ni letačke kombinezone, jer ih u to vrijeme nije bilo na raspolaganju, što je letove činilo vrlo rizičnima. Dimenzije uzletišta sarajevske luke iznosile su 800 x 750 metara. Ono je sa sjeverne i zapadne strane bilo ograničeno rijekama Miljackom i Bosnom, te brdima iza njih na udaljenosti 500 do 1 000 metara, visokih od 150 do 200 metara. Takav zemljopisni položaj uvjetovao je da se za slijetanje težih letjelica koristi istočna strana uzletišta, a za polijetanje zapadna. Zrakoplovi su se često koristili za prijevoz streljiva i opreme do udaljenih garnizona ili vojarna. U početnim akcijama partizani su streljačkom vatrom sa zemlje pogodili tri letjelice. Jedan je Potez XXV prilikom prinudnog slijetanja izgorio na zemlji, drugi se zrakoplov prinudno spustio na teritorij pod talijanskim nadzorom, a treći se, oštećen, uspio vratiti u Rajlovac. Ranjeni su piloti Arsenije Ikonjikov i Franjo Bak, te izvidnik Enver Rezaković. Deset časnika i pet dočasnika letaća predloženi su

that could not be repaired quickly, were taken apart at the technical storehouse in Ruma, or on the spot, and transported by rail, mainly to Sarajevo. Seriously damaged aircraft that could not be repaired were also collected for use as spare parts in the future. Other various aircraft and accompanying equipment also arrived in Zemun and Ruma. Most of the damaged aircraft were repaired at the factories "Zmaj" and "Ikarus" in Zemun, "Rogožarski" in Belgrade, and "Državna fabrika aeroplana" in Kraljevo. The repair and delivery of these aircraft was to extend well into 1943. In these factories, a smaller series of aircraft was even completed; the production of which had been interrupted at the beginning of the war.

Temporary storehouses for collecting technical material and ammunition that had remained from the Air Force of the former Yugoslavia, were also established in Zagreb, Sopnica, Sarajevo, and Bradina. According to the first field reports, a smaller number of aircraft were captured in the area that was controlled by the Croatian Army. In Mostar, four Breguet XIXs were found, in Sarajevo six obsolete aircraft, and a few in Banja Luka. At the airfields in the vicinity of Zagreb, a certain number of aircraft, corresponding to one squadron in strength, were captured.

Towards the end of June, the number of flying personnel and accompanying ground staff was sufficient for the official formation of two air bases-Zagreb and Sarajevo Air Base. On 25th June 1941, the Command of Zagreb Air Base was established and operationally ready. On 1st July, the first air base – Zagreb – began to operate. The air base in Sarajevo came under Croatian command on 26th June, and was immediately included in fighting action.

The air base planned for Zemun was never officially established. Italy's attitude towards Croatia significantly hindered the repossession and use of the air base in Mostar. A request had been filed on 20th June, with the Italian military delegation in Zagreb, that Mostar Air Base, previously occupied by the Italian Army, be handed over for use by the Croatian Air Force. However, this request was obviously not satisfied, because a report of 28th July by the Command at 3rd Air Base-Mostar, states that the Croatian staff had moved to the airfield in the vicinity of Gnojnice, near Mostar. On 4th August, the Air Force Command issued an order that the 3rd Air Base start operating on 10th August, and this was probably done, but not at the major airfield in Mostar. This is where the Italian, and later the German formations, were located up until the capitulation of Italy in 1943. The Italians enabled the education of Croatian pilots in the Pilot School situated in Mostar. Instruction was conducted on Saiman 200s and 202s, and on Imam/Romeo Ro-41s. The Croatian squadrons moved to the major airfield as late as 18th October 1943, but even then, German formations were present there.

za odlikovanje nakon tih borbenih letova. Akcijama je zapovijedao potpukovnik Adalbert Rogulja koji je bio i zapovjednik 2. zrakoplovne luke. Jednom od naredaba Zapovjedništva Zračnih snaga iz srpnja 1941. pohvaljeno je 20 osoba iz sastava Lučke radionice u Sarajevu za osobito isticanje u pripremi zrakoplova za letove i njihovo naoružavanje, što pokazuje da su pojačana djelovanja trajala i tijekom toga mjeseca. Naredbom Zapovjedništva zrakoplovstva od 14. kolovoza 1941. u sarajevskoj zrakoplovnoj luci na uzletištu Butmir osnovana je jedriličarska škola. Za smještaj jedrilica koristile su se i nadstrešnice hipodroma.

U drugoj polovini kolovoza iz Kraljeva je u Sarajevo preletio Breguet XIX, s motorom Jupiter, kao i četiri Fizira FN. Većina korištenih zrakoplova bila je poprilično dotrajala, tako da je u lučkoj radionici gotovo uvijek bilo po nekoliko letjelica na manjim ili većim popravcima. Od 9. do 19. kolovoza u montažnom odjelu radionice završen je popravak Poteza XXV (reg. br. 1058) i Fizira FN (reg. br. 644), a u tijeku su bili radovi na Breguetu XIX (reg. br. 1217), Potezu XXV (reg. br. 1052), FP. 2 (reg. br. 657), Fiziru FN (reg. br. 88), P.V.T.-u (reg. br. 549) i Fi 156 C. Svi navedeni registarski brojevi su vjerojatno starojugoslavenski, jer su poslije dobili nove hrvatske registarske brojeve. U odjelu radionice za motore popravljena su tri motora Gnome & Rhone K-7, a motori Jupiter ugrađeni su na Breguete i Poteze te Mercedes na Fizire.

Polovinom rujna, dolinama rijeka Save i Bosne iz Zemuna su u Sarajevo doletjela još dva Bregueta. Zbog malog doleta, dva su Fizira FN prilikom preleta najprije sletjela u Borovo, gdje su se opskrblila gorivom, a potom preko Bosanskog Šamca i dolinom rijeke Bosne stigla u Rajlovac.

Iako su letjelice iz Srbije prelijetale samo u povoljnim vremenskim prilikama, zbog njihove dotrajalosti nisu bila isključena prinudna slijetanja na područja na kojima su se pojavljivali partizani. Svi su piloti bili upozoreni da u takvim situacijama pri napuštanju zrakoplova moraju sakriti oružje i streljivo, ako ga ne mogu ponijeti sa sobom, a s letjelica koje bi se eventualno mogle pokrenuti, trebali su ukloniti bitnije dijelove motora. Postrojba dočasničkih pripravnika iz 2. zrakoplovne luke 4. je rujna vodila u okolici Sarajeva borbe s manjim partizanskim skupinama. Jedan je zrakoplov iz luke poletio i bombardirao protivnika. Od 9. do 18. rujna u radionici se ponovno popravljalo više zrakoplova. Završeni su radovi na dva Poteza, Bregueta i FP-a 2, a još se pet letjelica nalazilo u različitim fazama radova. Na visokokrilnom lovcu Ikarus IK-2 mijenjan je motor Hispano. Izrađivali su se i specijalni alati za servisiranje motora Jupiter, te drljača za jedrilice.

The most utilized air base during 1941, was the one in Sarajevo, at the Rajlovac airfield. Immediately after assuming command of this air base, the first combat missions of the Croatian Air Force were carried out. Already on 26th, 27th, and 28th June, two Potez XXVs and one Breguet XIX took off from Rajlovac, attacking Partisan formations in Eastern Herzegovina. The fight against the Partisan movement would remain the primary task of the Air Force till the end of the war. In the first actions, Fizir FP. 2 biplanes converted to carry six 12 kilogram bombs were also used. The pilots and observer-gunnery did not have parachutes and flying coveralls, because they were not available at the time, which made flights very risky. The dimensions of the airfield at Sarajevo Air Base were 800×750 meters. It was limited from the northern and western sides by the rivers Miljacka and Bosna, and by the mountains behind them, at a distance of 500-1000 meters. Their height was 150-200 meters. This geographical position required that heavier aircraft use the eastern side of the airfield for landing, and the western side for take-off. The aircraft were often used for transporting ammunition and equipment to distant garrisons or barracks. In the initial action, the Partisans hit three aircraft with fire from the ground. One Potez XXV crash-landed and burned on the ground, another one crash-landed near Italian territory, while a third was damaged, but managed to return to Rajlovac. The wounded were pilots Arsenije Ikonjickov and Franjo Bak, and observer Enver Rezaković. Ten officers and five non-commissioned officer-flyers were nominated for decoration after these fighter forays. Lieutenant-Colonel Adalbert Rogulja was in command of the action, and was also the Commander of the 2nd Air Base. Following an order by the Air Force Command, of July 1941, twenty people from the air base workshop in Sarajevo received honours for excellence in the preparation of aircraft for flights, and their armament, which shows that intensified action lasted through this month as well. Following an order by the Air Force Command, of 14th August 1941, a Glider School was established at Sarajevo Air Base – Butmir airfield. The gliders were even kept under the racecourse porch.

In the second half of August, a Breguet XIX with a Jupiter engine and four Fizir FNs, flew over from Kraljevo, to Sarajevo. Most of the aircraft that were used were pretty worn out, so that there were always several aircraft in the air base workshop, in need of both major and minor repairs. From 9th to 19th August, in the assembly section of the workshop, the repair of Potez XXV (serial no. 1058) and Fizir FN (serial no. 644) was completed, while work was still in progress on Breguet XIX (serial no. 1217), Potez XXV (serial no. 1052), FP. 2 (serial no. 657), Fizir FN (serial no. 88), P.V.T. (serial no. 549), and a Fi 156C. All the aforementioned serial numbers were probably old Yugoslav numbers, because they received new Croatian serial numbers later.

Početkom listopada i drugi primjerak IK-2 našao se u radionici. Piloti su izbjegavali letjeti na tom lovcu, smatrajući da je preglednost iz kabine pri slijetanju i polijetanju, zbog visoko postavljenih "galebovih krila", izuzetno loša. Na starom dvokrilnom lovcu Avia BH-33 E popravljene su električne instalacije i ugrađen je nosač za bombe pod krilima. Nosači su se ugrađivali na gotovo sve loše prikladne letjelice, a izrađivali su se u samoj radionici. Gotovo svi zrakoplovi 7. i 8. jata su pregledani i na njima obavljeni manji popravci drvene konstrukcije i letnih instrumenata. U to vrijeme ispisuju se i novi hrvatski registarski brojevi na trupove letjelica.

Prva zrakoplovna luka - Zagreb, u prvim mjesecima nakon osnivanja, bila je matična baza 1. skupine koja se sastojala samo od jednog jata - 1. jata. Prosječno brojno stanje luke činila su, u tom razdoblju, 54 časnika, 501 dočasnik, 50 pitomaca dočasničke škole i 120 ostalog osoblja. Osim letjelica koje su zatečene na uzletištima oko Zagreba, pri kapitulaciji Jugoslavije, krajem srpnja 1941. satnik Ivan Pezelj s tročlanom posadom iz Beča doletio je zrakoplovom Savoie-Marchetti S. 79, talijanskog tromotornog bombardera s motorima Alfa-Romeo. Uvršten je u sastav 1. jata. Jedan Breguet XIX s motorom Jupiter, te dva P.V.T.-a u Zagreb su stigli iz Kraljeva, odnosno Zemuna, sredinom kolovoza. Nakon 11. rujna, iz Zemuna su doletjela još dva zrakoplova (Potez i Breguet), a 30. rujna 1941. godine 1. jato raspolagalo je sa 16 zrakoplova. Tipovi i količina s registarskim brojevima i drugim podacima prikazani su u tablici 1. To je jato u rujnu izvršilo 48 letova u ukupnom trajanju od 69 sati. Borbene zadaće obavljale su se samo Breguetima (33 leta). Zrakoplovi su izviđali, mitraljirali i bombardirali te bacali letke na području Hrvatske i zapadne Bosne. Zanimljiva je činjenica što jedini pravi bombarder u tom trenutku, S. 79, nije letio. Motori su tijekom rujna bili u pogonu samo 10 minuta pri probnim startanjima. Ni jedini primjerak Poteza XXV, zbog generalnog remonta, nije letio u tom mjesecu. Fizir FN, P.V.T.-i, te R-100 korišteni su za školske letove. Za svih 16 zrakoplova jato je raspolagalo s osam udvojenih strojnica za izvidnike Darn 7,7 mm i šest fiksnih strojnica istog modela. Strojnice Breda (dvije izvidničke i jedna fiksna) nisu rabljene zbog nedostataka streljiva. Na raspolaganju su bile samo bombe od 12 kg. Osim triju padobrana, zatečenih na uzletištu, i 10 posuđenih od njemačkog zapovjedništva, u rujnu je nabavljeno još 10 novih.

U blizini Zagreba sredinom 1941. godine, osnovana je Vojna jedriličarska škola za visoko jedrenje. Matično uzletište škole nalazilo se u Svetoj Nedjelji. U to je vrijeme škola koristila dva Fizira FN i šest jedrilica.

Na uzletištu Borongaj, pokraj Zagreba, u rujnu se osnivalo Prvo dočasničko popunđbeno jato, koje je trebalo pripremati zrakoplovni kadar za daljnja školova-

In the workshop's engine section, three Gnome & Rhone K-7 engines were repaired, and Jupiter engines were built into the Breguets and Potezs. Mercedes engines were built into the Fizirs.

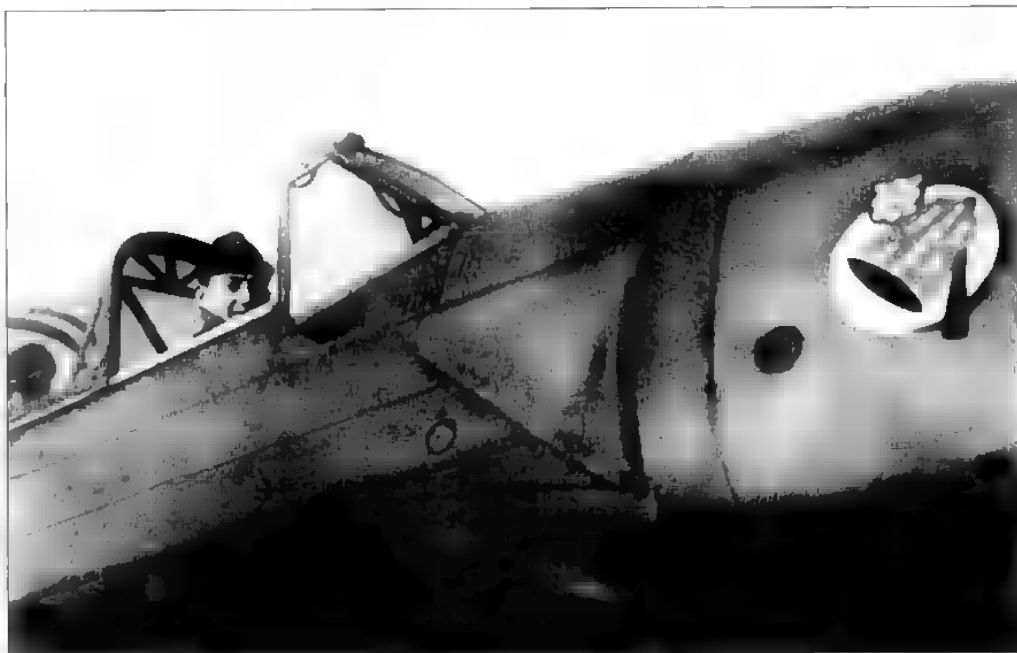
Around mid-September, two more Breguets flew in from Zemun, to Sarajevo, down the valleys of the rivers Sava and Bosna. Due to their short flying range, two Fizir FNs that flew over, first landed in Borovo, where they were supplied with fuel, and then reached Rajlovac, by flying over Bosanski Šamac and down the valley of the river Bosna.

Although flights from Serbia took place only in favourable weather, owing to the often worn-out aircraft, the possibility of crash-landing in areas where the Partisans were known to appear was not out of the question. All pilots were under orders to hide their weapons and ammunition in such situations, if they were unable to take them with them. In regard to downed aircraft that might be re-started, it was directed that vital engine parts be removed in order to prevent this. From the 2nd Air Base on 4th September, a formation of non-commissioned officer-trainees was engaged in fighting with smaller groups of Partisans in the vicinity of Sarajevo. One aircraft took off from the air base and bombed the opposition. From 9th to 18th September, several aircraft were repaired once again in the workshop. Work was completed on two Potezs, Breguets and FP 2.s, while different work was carried out on another five aircraft. The Hispano engine was changed on the high-winged Ikarus IK-2 fighter. Special tools for engine servicing were manufactured, as well as harrows for gliders.

At the beginning of October, the second IK-2 found itself in the workshop. Pilots avoided flying this fighter, believing the view from the cockpit was very poor during landing and take-off, due to the high position of the "gull's wings." On the old biplane fighter, Avia BH-33 E, the electrical installations were repaired, and a bomb carrier was installed under the wings. Where possible, carriers were built onto every aircraft, and were manufactured at the workshop itself. Almost all the aircraft of the 7th and 8th Squadrons were examined and small repairs were carried out on their wooden frames and flying instruments. New Croatian serial numbers were then applied to the aircraft fuselages.

During the first few months after its establishment, the first Air Base-Zagreb was the base of the 1st Group, which consisted of only one squadron: the 1st Squadron. The average number of personnel at the air base during this period consisted of 54 officers, 501 non-commissioned officers, 50 non-commissioned officer-

nja. Nakon strogih liječničkih pregleda, odabrano je 65 budućih pitomaca. Početkom rada njemačke pilotske škole AB-123 na Borongaju, kao posebno odjeljenje školuje se i 65 hrvatskih pitomaca. Nastavnici letenja bili su hrvatski piloti, a teorijske predmete predavali su, osim Hrvata, i njemački nastavnici. Početna nastava dobivala se na letjelicama Bü 131 i FW 44. Nakon toga se prelazilo na tipove Klemm 35, FW 58, Junkers W 34 i Bü 133. Završna nastava prije dobivanja diplome vojnog pilota obavljala se na modernom niskokrilcu Arado Ar 96. Na tom su tipu obavljani i noćni preleti na druga uzletišta (npr. Graz). Na svim je letjelicama škole bio nacrtan grb škole – muslimanski fes i hrvatski grb, te slova AB. U činu vodnika 60 dočasnika primilo je diplome 1. ožujka 1943, a većina je poslije upućena na daljnu izobrazbu u Njemačku (Lovačka škola u Herzogenaurachu).



3. Arado Ar 96 B. U AB-123 korišten je za završnu izobrazbu pilota.
3. An Arado Ar 96B. Used in the AB-123 for the final training of pilots.

Partizanski je pokret jačao i proširio se na područje Istočne Srbije, pa se zrakoplovi NDH pojavljuju na bosansko-srpskoj granici. Za bombardiranje cestovnih komunikacija i partizanskih područja u pozadini počinju se koristiti teži zrakoplovi (S. 79 i Avia-Fokker F. 39), s bombama od 100 kg. Nepovoljni vremenski uvjeti tijekom listopada i studenoga ograničili su zračne napadaje.

cadets, and 120 other staff. Apart from the aircraft that were captured at airfields around Zagreb when Yugoslavia capitulated, Captain Ivan Pezelj, and a crew of three, flew over from Vienna towards the end of July 1941, in a Savoie-Marchetti S. 79 aircraft; an Italian three-engine bomber with Alfa-Romeo engines. It was assigned to the 1st Squadron. One Breguet XIX, with a Jupiter engine, and two P.V.T.s, arrived in Zagreb from Kraljevo and Zemun, around mid-August. After 11th September, two more aircraft (a Potez and a Breguet) flew in from Zemun, and from 30th September, the 1st Squadron had sixteen aircraft at its disposal. Types and quantities, together with serial numbers and other data are provided in Table 1. In September, this squadron carried out forty-eight flights lasting a total of sixty-nine hours. The combat missions were performed only with Breguets (thirty-three flights). Reconnaissance missions, machine-gun firing, and bombings were carried out, as well as leaflet dropping missions in the area of Western Bosnia and Croatia. It is interesting that the only real bomber at that time, the S. 79, did not fly at all. During September, the engines were run for only ten minutes during test starts. Due to an on-going overhaul, the single Potez XXV did not fly during that month either. The Fizir FN, the P.V.T., and the R-100 were used for training flights. For the entire squadron of sixteen aircraft, there were eight 7.7 mm Darn double-barrelled machine-guns for observers, and six of the same model with fixed mounts. The Breda machine-guns (two reconnaissance and one fixed mount) were not used, due to a lack of ammunition. Only 12 kg bombs were available. Besides three parachutes that were found at the airfield and ten that had been borrowed from the German Command, ten brand new ones were acquired in September.

Around mid-1941, in the vicinity of Zagreb, the Military Glider School for high-altitude flying was established. Its base was at Sveta Nedjelja. At that time, the school used two Fizir FNs and six gliders.

In September, at Borongaj airfield near Zagreb, the 1st Non-Commissioned Officers' Reinforcement Squadron was formed in order to prepare aviation personnel for advanced training. After strict medical examinations, sixty-five cadet candidates were chosen. When the German Pilot School AB-123 started to operate at Borongaj, sixty-five Croatian cadets were trained as a separate class. The flying instructors were Croatian pilots, while theoretical subjects were presented by both Croatian and German lecturers. Initial instruction was carried out on Bü 131 and FW 44 aircraft. Afterwards, they were transferred to the following types: Klemm 35, FW 58, Junkers W 34 and Bü 133. Final training, prior to receiving the military pilot's diploma, was performed on the modern low-winged Arado Ar 96. Night flights to



4. Bücker Bü 131 Jungmann, školski zrakoplov u AB-123. Obratiti pozornost na oznaku škole na nosu i bijeli broj "32" na vertikalnom stabilizatoru.

4. A Bücker Bü 131 Jungmann-Training aircraft in AB-123. Notice the school emblem on the nose and the white number "32" on the rudder.

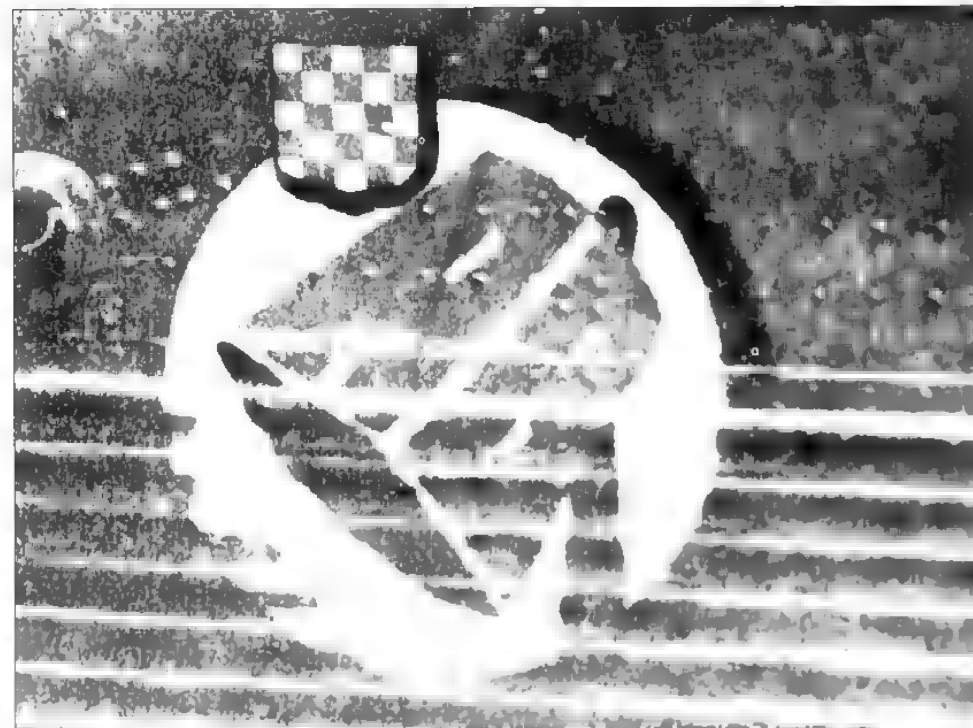
U 3. skupni zrakoplovne luke u Sarajevu, osim 7. i 8. jata, osniva se i 9. jato i dodjeljuje mu se osam letjelica Bü 131 i isto toliko Bü 133. Iz zemunske tvornice "Wiener Neustadter Flugzeugwerke" stigao je dvomotorni bombarder Caproni Ca 310 Libeccio. U to su se vrijeme u Sarajevu nalazila dva vrlo rijetka visokokrilca, konstruirana i izrađena u Kraljevini Jugoslaviji – SIM X i SIM XI.

Dvosjedi SIM X. konstruiran je početkom 1937. godine, a do kraja 1938. izrađeno je 20 primjeraka. Opremljen je motorom Walter NZR od 120 KS, a postizao je brzinu do 202 km/h. U jugoslavenskom zrakoplovstvu korišten je za višu fazu početne izobrazbe. Njime su se mogli izvesti osnovni akrobatski elementi. Većina ih je uništena u njemačkom napadaju, ali su pojedini primjerci zatečeni u letnom stanju. U tvornici "Rogožarski" Nijemci su zatekli ispravan SIM, reg. br. 321.

other airfields (e.g. Graz) were carried out with this type. All of the school's aircraft had an emblem with the Muslim fez, the Croatian coat-of-arms, and the letters AB. On 1st March 1943, sixty non-commissioned officers received diplomas for the rank of sergeant, and most of them were later sent to Germany for further training. (The School for Fighter Pilots in Herzogenaurach.)

The Partisan movement became stronger and spread to the area of Eastern Serbia, and Croatian aircraft appeared on the Bosnian-Serbian border. Heavier aircraft (S. 79 and Avia-Fokker F. 39), with 100 kg bombs, started to be used for bombing road communications and targets in the rear of Partisan regions. Unfavourable meteorological conditions during October and November limited aerial attacks.

Within the 3rd Group of Sarajevo Air Base, besides 7th and 8th Squadrons, the 9th Squadron was formed, and assigned eight Bü 131 aircraft, and the same num-



5. Oznaka škole na nosu zrakoplova Focke Wulf FW 58 Weihe

5. The school emblem on the nose of a Focke Wulf FW 58 Weihe.



6. Rogožarski SIM X, reg. br. 7301. Pilot narednik Šime Miletić, Rajlovac, 1942.

6. Rogožarski SIM X, serial no. 7301. Flight Sergeant Šime Miletić, Rajlovac 1942.

U zrakoplovstvu NDH korišten je samo jedan primjerak (reg. br. 7301) cijeli obojen maslinastozelenom bojom, kao i većina sličnih letjelica u Kraljevini Jugoslaviji. U Sarajevu se, uglavnom, koristilo u jedriličarskoj školi na Butmiru. U letačkoj knjižici zapovjednika škole M. Lipovšćaka upisano je ukupno 40 letova na toj letjelici, u ukupnom trajanju 22 sata i 3 minute. U lipnju 1942. premješten je u 19. promidžbeno jato u Zagrebu. Uništen je 18. listopada 1943. Toga je dana teglio njemačku jedrilicu DFS 230 iz Zemuna u Zagreb. Kod sela Ašanja jedrilica se zbog tehničke greške otkočila od SIM-a i spustila. Pilot je pokušao zrakoplovom sletjeti kako bi je ponovno podignuo u zrak, ali je u tom trenutku na njega otvorena streljačka vatra pripadnika Srijemskog partizanskog odreda, pri čemu je oštećen te se prinudno spustio kod sela Boljevca. Posada je izbjegla zarobljavanje, ali su partizani zrakoplov zapalili.

Jednosjed SIM XI također je proizvod tvornice "Rogožarski". Opremljen je zvjezdastim motorom Bramo Sh 14a s karburatorom za ledni let. Izrađen je u samo jednom primjerku, jer zrakoplovno zapovjedništvo Kraljevine Jugoslavije nije naruči-

ber of Bü 133s. The twin-engine bomber, Caproni Ca 310 Libeccio, arrived from the Zemun factory "Wiener Neustadter Flugzeugwerke (WNF)." At that time in Sarajevo, there were two very rare high-wingers that had been constructed and manufactured in the Kingdom of Yugoslavia- the SIM X and SIM XI.

The two-seater SIM X had been constructed at the beginning of 1937, and by the end of 1938, twenty machines had been made. It was equipped with a Walter NZR engine with 120 HP, and could achieve a maximum speed of 202 km/h. In the Yugoslav Air Force it was used for the higher level of basic training, and basic aerobatic manoeuvres could be performed with it. Most of them were destroyed during the German attack, however, certain airworthy machines were found. In the "Rogožarski" factory the Germans came across a SIM in working order, with the serial number 321.

The Croatian Air Force used only one machine (serial number 7301) that was painted entirely olive green, as most similar aircraft had been in the Kingdom of Yugoslavia. In Sarajevo, it was mostly used in the Glider School at Butmir. In the flying booklet of the flying school's Commander, M. Lipovšćak, a total of forty flights on this aircraft were registered, lasting a total of 22 hours and 3 minutes. In June 1942, it was transferred to the 19th Promotional Squadron in Zagreb. It was destroyed on 18th October 1943. On that day it was towing a German DFS 230 glider from Zemun to Zagreb. Near the village of Ašanja, the glider unhooked itself from the SIM, due to a technical error, and landed. The pilot tried to land the aircraft in order to lift the glider again, but at that moment, he was fired upon by members of the Srijem Partisan detachment, who damaged it, and forced it to crash-land near the village of Boljevac. The crew escaped capture, but the Partisans burned the aircraft.

The one-seater SIM XI was also a product of the "Rogožarski" factory. It was equipped with a radial engine Bramo Sh 14a, with a carburettor for flying upside down. Only one machine was produced because the Air Force Command of the Kingdom of Yugoslavia did not order assembly-line production, believing that a higher level of pilot training, including aerobatic flights, could be carried out on the existing R-100s and P.V.T.s. The machine constructed before the war was used by test pilots for practising and for promotional flights. Existing film records show that its aerobatic abilities were respectable. The German formations found it in working order and handed it over to Croatia, where it was mostly used for towing gliders at Butmir. It had the Croatian serial number 7351. The civilian pre-war colouring scheme (a red fuselage with a white arrow and silver wings) was repainted with a

lo serijsku izradu, smatrajući da se viši stupanj pilotske izobrazbe, uključujući i akrobatske letove, može provoditi na postojećim tipovima R-100 i P.V.I. Izrađeni primjerak prije rata korišten je za vježbanje probnih pilota i promidžbene letove. Iz filmskih zapisa može se vidjeti da su njegove akrobatske sposobnosti bile respektabilne. Njemačke su ga postrojbe zatekle u ispravnu stanju, te predale hrvatskom zrakoplovstvu, gdje je uglavnom korišten za vuču jedrilica na Butmiru. Imao je hrvatski registarski broj 7351. Civilna predratna shema bojenja (crveni trup s bijelom strijelom i srebrnim krilima) prebojena je zelenom bojom. M. Lipovšćak, zapovjednik škole, s tim je zrakoplovom izvršio 80 letova u ukupnom trajanju 60 sati i 37 minuta. Pilot je autoru ovoga teksta iznio sjećanja o tome kako SIM-ovi nisu bili tako pogodni za tegljenje jedrilica kao dvokrilni Fiziri FN, s kojima je vuča jedrilica bila mnogo ugodnija.

U zagrebačku zrakoplovnu luku sredinom listopada 1941. iz Zemuna je dopremljen po jedan Breguet, Potez, Fizir FN, P.V.T., IK-2 i R-100. Tip Bü 131 (reg. br. 7511 - starojugoslavenski 910) popravljen je u 1. lučkoj radionici i raspoređen u 1. skupinu.

Do sredine listopada zrakoplovi iz 1. i 2. zrakoplovne luke intenzivno su bili uključeni u suzbijanje partizanskih pobuna. Osim bombardiranja i izviđanja, često su hranom i streljivom opskrbljivali udaljene vojarne i garnizone do kojih je pristup cestama bio otežan. Često su se prevozili i ranjenici. Poznata je fotografija Poteza XXV koji na trupu ima veliki crveni križ na bijeloj podlozi. Za te svrhe korišteni su i drugi prikladni zrakoplovi.

Rad i osiguranje veće njemačke potpore, još 2. srpnja 1941. Izdan je proglas s pozivom hrvatskim vojnicima za pristupanje u dobrovoljačke postrojbe, koje će u sastavu njemačke vojske biti upućene na bojišta u Sovjetskom Savezu. Na temelju Poglavnikove naredbe od 27. lipnja, zapovjednik zrakoplovstva general V. Kren osnovao je Legiju zrakoplovstva NDH, a 12. srpnja utemeljena je 4. i 5. zrakoplovna skupina. Već 15. srpnja zrakoplovni dio Legije, pod nazivom Hrvatska zrakoplovna skupina, upućen je željeznicom iz Zagreba na izobrazbu u Njemačku, a nakon završene izobrazbe na Istočno bojište. Zbog opsežnosti i zanimljivosti tog dijela povijesti hrvatskog zrakoplovstva, o tome će još biti riječi.

Još jedna školska ustanova utemeljena je u rujnu. U Petrovaradinu je 20. rujna počela s radom Zrakoplovna školska pukovnija. Osim stožera, pukovnija je imala dvije bojne s nekoliko satnija, a u sklopu nje povremeno su se organizirali fotografski, mehaničarski i meteorološki tečajevi. Tu se nalazila i dočasnička škola. U taktičkom je pogledu pripadala II. zboru odnosno Srijemskom zdruhu. Pripadnici

green colour. M. Lipovšćak, the school's Commander, carried out eighty flights with this aircraft, lasting a total of 60 hours and 37 minutes. The pilot told the author of this text his memories of how the SIMs were not as suitable for towing gliders as the Fizir FN biplanes, with which, towing gliders was much more comfortable.

Around mid-October 1941, one of each of the following aircraft was delivered to Zagreb Air Base from Zemun: Breguet, Potez, Fizir FN, P.V.T., IK-2 and R-100. The type Bü 131 (serial no. 7511- old Yugoslav no. 910) was repaired in the 1st Air Base's workshop and assigned to the 1st Group.

By mid-October the aircraft from the 1st and 2nd Air Bases were actively engaged in warding off Partisan rebellions. Apart from bombing and reconnaissance missions, they often supplied food and ammunition to distant barracks and garrisons to which road access was difficult. The wounded were often transported too. A photograph exists of a Potez with a large red cross on a white background painted on its fuselage. Other suitable aircraft were also used for these purposes.

In order to ensure greater German support, a proclamation was issued, as early as 2nd July 1941, calling for Croatian soldiers to join the voluntary formations earmarked for the battlefields of the Soviet Union, as part of the German Army. On the basis of the Poglavnik's order of 27th June, the Air Force Commander, General V. Kren, formed the Croatian Air Force Legion, and the 4th and 5th Air Force Groups were established on 12th July. As early as 15th July, the aviation element of the Legion, called the Croatian Air Force Group, was despatched by rail from Zagreb to be trained in Germany, and after completion of training, on to the Eastern Front. As this part of Croatian aviation history is very large and interesting, it shall be dealt with further.

Another training Institution was established in September. In Petrovaradin, on 20th September, the Aviation School Regiment began to operate. Apart from the staff, the regiment had two battalions with several troops, and within it, photographic, mechanical, and meteorological courses were organised from time to time. The School for Non-Commissioned Officers was also there. From the tactical viewpoint, it belonged to the II Army (*zbor*), i.e. the Srijem Brigade (*zdrug*). Members of the regiment participated in the fighting at Fruška Gora several times. On the 7th and 8th September, most of the men, and the Commander, Stjepan Jurčević, defected to the Partisan side. Following an order by the Air Force Commander of 28th August 1944, it became a part of the Pilot School in Borovo.

pukovnije nekoliko su puta sudjelovali u borbama na Fruškoj gori. Veći dio ljudstva je 7. i 8. rujna 1944. sa zapovjednikom Stjepanom Jurčevićem prešao na stranu partizana. Prema zapovijedi Zapovjedništva zrakoplovstva od 28. kolovoza 1944. ulazi u sastav 1. pilotske škole u Borovu.

Krajem 1941. godine zrakoplovstvo je u svom sastavu imalo 95 različitih zrakoplova, od kojih je 60-ak bilo spremno za letenje. U borbene svrhe moglo je poslužiti 40 letjelica, a ostale su se rabile za vezu i školovanje.



7. Potez XXV A2 teško uočljivog reg. br. 5019, malih dimenzija

7. A Potez XXV A2, with a poorly visible serial number, 5019, that is small in size.

Towards the end of 1941, the Air Force consisted of ninety-five different aircraft, with an average of about sixty being mission-ready. For combat purposes, forty aircraft could be used, while the others were used for liaison and training purposes.



8. U zimskom razdoblju pojedini Potezi XXV opremani su skijama. U pozadini primjerak sa svjetlom oznakom "V" i brojem "13".

8. During the winter, certain Potez XXVs were equipped with skis. In the background there is a machine with a light "V" sign, and the number "13".



9. Fizir FP 2 iz 1. pilotske škole Borovo. Reg. br. 6803 žute boje. Pored njega je nacrtan bijeli broj "11"

9. A Fizir FP. 2, from the 1st Pilot School in Borovo. Yellow serial number 6803. Next to it a larger number "11" was drawn in white.



10. Fizer FN reg. br. 7001 starog tipa, malih dimenzija

10. Fizer FN, serial number 7001, of an old type, small in size.



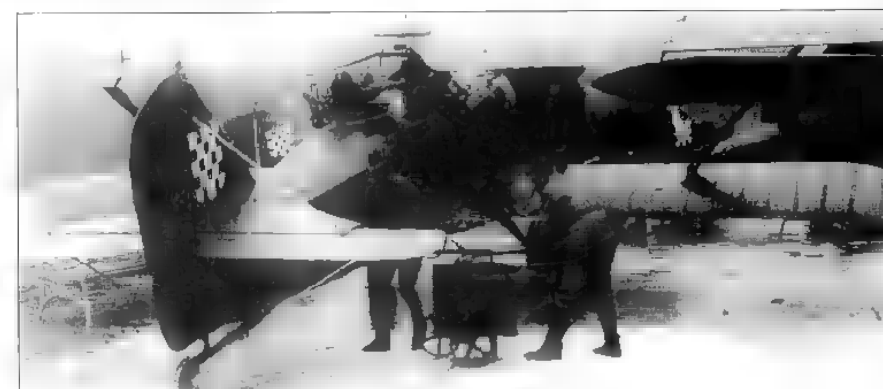
11. Fizer FP 2 sa skinutim poklopcima kotača i crnim reg. br. 6815.

11. A Fizer FP. 2, with wheel covers removed and the black serial number 6815.



12. Potez XXV A2 na kojem se uočava žuti reg. br. 5008. Obratili pozornost na strojnice Darn 7,7 mm na leđnom položaju.

12. A Potez XXV A2, on which the yellow serial number 5008 can be seen. Notice the Darn 7.7mm machine-guns in the rear position.



13. Grupa Bregueta XIX. U pozadini primjerak s reg. br. 4707.

13. A group of Breguet XIXs. In the background there is a machine with the serial no. 4707.



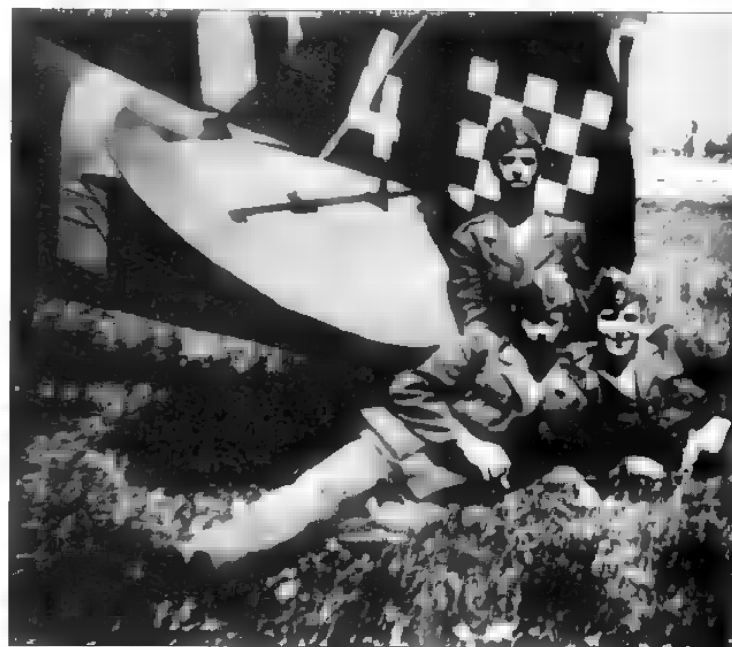
14. Fizir FN reg. br. 7005 žute boje, velikih dimenzija. Ispod njega vidi se isti broj crne boje mnogo manjih dimenzija iz ranije razdoblja.

14. Fizir FN, serial number 7005, yellow in colour and large. Beneath it, one can see the same number in black, much smaller in size, from an earlier period.



15. Breguet XIX s motorom Wright Cyclone I reg. br. vjerojatno, 4706. Državni grb ima crveni obrub. Uočava se žuta površina na vrhu gornjeg dijela krila.

15. Breguet XIX, with a Wright Cyclone engine, and probably the serial number 4706. The state coat-of-arms has a red border. The yellow surface on the top of the upper part of the wings can be observed.



16. Stražnji dio Fizira FP 2 na kojem se uočava bijeli broj "4" koji je zadržan iz ranije službe u Rajlovcu. Primjerak je nosio reg. br. 6802 te bijeli broj "10" na trupu koji je napisan po dolasku u 1. pilotsku školu.

16. The rear end of a Fizir FP 2, on which a white number "4" is noticeable, having remained from previous service in Rajlovac. This machine bore the serial no. 6802, and a white number "10" on the fuselage, that was applied upon arriving at the 1st Pilot School.



17. Bucker Bü 131 Jungmann u standardnoj jednobojnoj shemi bojenja (RLM 66)

17. Bucker Bü 131 Jungmann, in the standard one-colour colouring scheme (RLM 66).

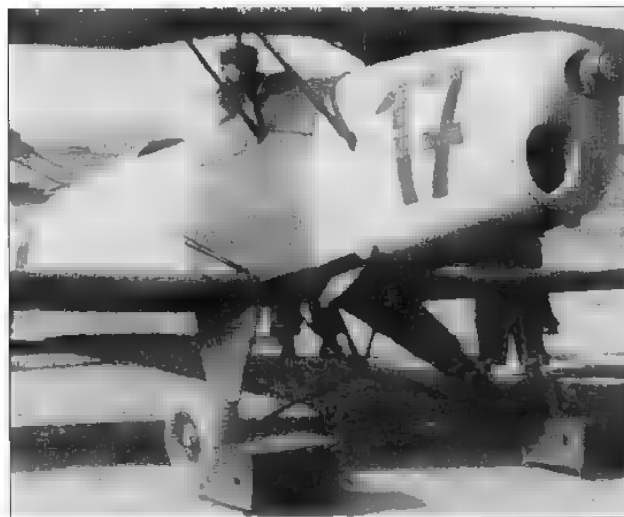


18. Detalj stražnjeg dijela Bregueta. Državni grb s crvenim obrubom.

18. A detail of the rear part of a Breguet. The state coat-of-arms with a red border.

21. Bü 131 na kojem je nacrtana samo kontura državnog grba

21. A Bü 131, on which there is only an outline of the state coat-of-arms.



19 i 20. Bü 131 s bijelim i crnim brojevima na nosu koje su dobivali unutar jata u pilotskim školama

19. and 20. A Bü 131 with white and black numbers on the nose, which they received for pilot schools.





22. Srušeni Bü 131 u Vinkovcima (kolovoz 1943.). Zanimljivo je da ovaj primjerak nema napisane registrarske brojeve na trupu te crveni obrub oko državnoga grba.

22. A downed Bü 131 in Vinkovci (August 1943.) It is interesting that this machine had no serial numbers drawn on the fuselage, and had a red border around the state coat-of-arms.



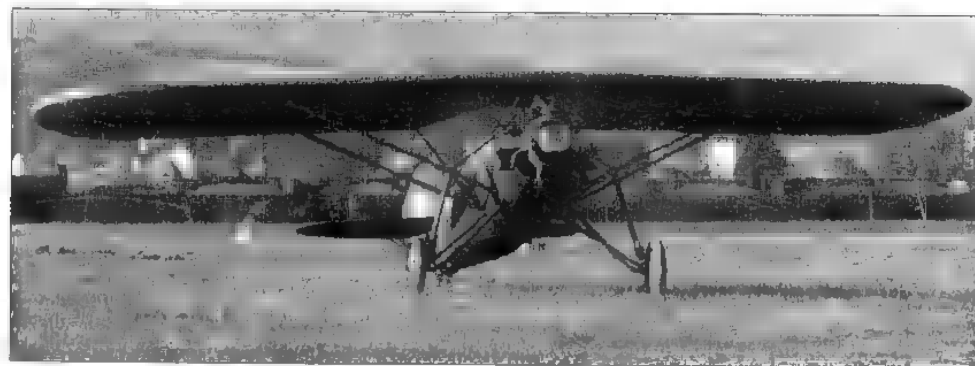
23. Breguet XIX nepoznatog registrarskog broja s motorom Lorraine

23. A Breguet XIX, with an unknown serial number, and a Lorraine engine.



24. Stražnji dio Rogožarskog R-100, reg. br. 6501, novijeg tipa, većih dimenzija. Državni grb nema crveni obrub. Standardna žuta traka oko trupa.

24. The rear end of a Rogožarski R-100, with the serial number 6501, that is newer and larger in size. The state coat-of-arms does not have a red border. Note the standard yellow band around the fuselage.



25. Rogožarski P.V.T. snimljen na Borongaju 21. rujna 1941. Uočavaju se žute površine na donjim dijelovima krila te traka oko trupa.

25. A Rogožarski P.V.T., photographed at Borongaj on 21st September 1941. Note the yellow surfaces on the lower parts of the wings and the band around the fuselage.



26. Nastavnici letenja 1. pilotske škole u Borovu ispred Bregueta XIX s motorom Gnome & Rhone.

26. The flying instructors of the 1st Pilot School in Borovo, in front of a Breguet XIX, with a Gnome & Rhone engine.



27. Rogožarski R-100, Rajlovac. Uočava se dio reg. br. 6502, starog je tipa, malih dimenzija.

27. A Rogožarski R-100, Rajlovac. Note part of the old type of serial number, 6502, that was small in size.



28. Prototipni primjerak AERO 2, u prvom razdoblju korištenja zadržao je civilnu shemu bojenja iz Kraljevine Jugoslavije. Gornje su površine vjerojatno crveno-ljubičaste a donje krem.

28. The prototype of the AERO 2 kept its civilian colouring scheme from the Kingdom of Yugoslavia, at least in the first period of use. The upper surfaces were probably red-purple, and the lower ones, cream-coloured.



29. Potez XXV A2, reg. br. 5012

29. Potez XXV A2, serial number 5012

RUJAN 1941. – SASTAV 1. JATA, 1. SKUPINE ZRAKOPLOVNE LUKE ZAGREB

SEPTEMBER 1941 – COMPOSITION OF THE 1ST SQUADRON OF THE 1ST GROUP
AT ZAGREB AIR BASE

Redni broj Ordinal number	Tip zrakoplova Aircraft type	Registarski broj Serial number	Broj motora Engine number	Napomene Notes
1.	Savoia Marchetti S.79	0701	22450 22453 22451	Letio samo 10 minuta. Flew only 10 minutes.
2.	Breguet XIX	4701	22235	Motor Wright Cyclone. Wright Cyclone engine.
3.	Breguet XIX	*	22209	Motor Wright Cyclone. Wright Cyclone engine.
4.	Breguet XIX	*	324	Motor Jupiter. Jupiter engine.
5.	Breguet XIX	*	314	Motor Jupiter. Jupiter engine.
6.	Breguet XIX	*	?	Na generalnom popravku (motor Jupiter). Undergoing general repairs (Jupiter engine).
7.	Potez XXV	5001	242	Na generalnom popravku. Undergoing general repairs
8.	Rogožarski R-100	6501	105	
9.	Rogožarski R-100	*	15	
10.	Rogožarski P.V.T.	6601	10	
11.	Rogožarski P.V.T.	*	40	
12.	Fizir FN	*	52	
13.	Bücker Bü 131	*	412/3929	
14.	Bücker Bü 131	*	412/3982	
15.	Bücker Bü 131	*	412/3978	
16.	Bücker Bü 131	*	412/3944	

* - U ovom razdoblju navedeni zrakoplovi još nisu dobili hrvatske registarske brojeve.

* - At this time these aircraft had not yet received Croatian serial numbers.

Godina 1942.

U siječnju 1942. u zagrebačkoj zračnoj luci u sklopu 1. skupine osniva se 2. i 3. jato, a u Sarajevu dvije nove skupine – 2. skupina sa 4., 5. i 6. jatom te 6. zrakoplovna skupina s 16. i 17., i, nešto poslije, 18. jatom. Šesta skupina nalazila se u Sarajevu samo privremeno, jer je za njezinu stalnu bazu određena Banja Luka. Čekalo se samo njezino konačno dovršenje.

Tako su se na tlu Hrvatske početkom 1942. godine u sastavu zrakoplovstva nalazile četiri skupine s 12 jata. Dvije skupine, 4. i 5., bile su u sastavu Hrvatske legije na Istočnoj bojišnici. Pregled skupina i jata s korištenim zrakoplovima po pojedinim lukama za to razdoblje prikazan je u tablici 2. Opremljenost pojedinih jata tipovima letjelica navedenim u tablici rađen je na osnovi službenih dokumenata Zapovjedništva zrakoplovstva, ali početkom 1942. nije u potpunosti odgovarala stvarnom stanju. Naime, pojedine su se letjelice uvrštavale u sastav jata, iako će u Hrvatsku stići tek naknadno.

U siječnju je bilo dosta preleta zrakoplova iz jata u jato ili druge skupine i luke, jer je naredbom od 1. siječnja točno utvrđen sastav svih jata. Na primjer, 9. siječnja iz Zagreba u Sarajevo preletjela su tri Caproni Libeccia, tri R-100 i dva P.V.T.-a.

Posljednja dva tipa R-100 i P.V.T. u 1942. godini se opremaju podtrupnim nosačem za bombu od 100 kg.

Prototip školsko-borbenog zrakoplova P.V.T. poletio je krajem 1934. godine, a do lipnja 1939. proizveden je ukupno 61 primjerak u četiri proizvodne serije. Opremljen je sedmocilindričnim motorom Gnome & Rhone K-7 od 420 KS. Već je tada na njega pokusno ugrađen nosač za bombu s električnim aktiviranjem. Probe su uspješno izvršene, ali se taj nosač nije serijski ugrađivao. U tvornici "Rogožarski" Nijemci su zatekli 11 P.V.T.-a na reviziji, uz dodatna tri koja su bila u završnim fazama proizvodnje u pogonima na Bežanijskoj Kosi. Svi su predani zrakoplovstvu NDH, a osim primjeraka iz prve proizvodne serije korišteni su i primjerci iz četvrte serije, opremljeni sa po dvije strojnice tipa Darn 7,7 mm, ugrađene u trupu ispred pilotske kabine. Za ciljanje se koristio mehanički ciljnik, a ugrađena je i foto strojnica u posebno profiliranom kućištu. U NDH-u je više primjeraka dobilo nosač za bombu od 100 kg, koje su se otpuštale iz ponirućeg položaja.

The Year 1942

In January, at Zagreb Air Base, the 2nd and 3rd Squadrons were formed within the 1st Group. At Sarajevo, two new groups - the 2nd, with the 4th, 5th, and 6th Squadrons, and the 6th Air Force Group with the 16th, 17th and somewhat later, 18th Squadrons, were established. The 6th Group was located in Sarajevo only temporarily, because Banja Luka had been identified as its permanent base. Only its final completion was awaited.

So, at the beginning of 1942 there were four groups, with twelve squadrons, within the Air Force, on the territory of Croatia. Two groups, the 4th and 5th, formed a part of the Croatian Legion on the Eastern Front. A review of the groups and squadrons with aircraft used at each air base during this period is provided in Table 2. The resources of each individual squadron with the aircraft types provided in the Table was derived from official documents of the Air Force Command, but at the beginning of 1942 did not correspond fully with the actual situation. Namely, certain aircraft were included in squadrons, although they were only to arrive in Croatia subsequently.

In January, there were many aircraft transfers from one squadron to another, or to other groups and air bases, since an order of 1st January formalised the precise structure of all squadrons. For example, on 9th January, three Caproni Libeccias, three R-100s, and two P.V.T.s flew over from Zagreb to Sarajevo.

In 1942, the latter two types were equipped with a carrier under the fuselage, for a 100 kg bomb.

A prototype of the P.V.T. fighter-trainer aircraft had been developed towards the end of 1934, and by June 1939, a total of sixty-one machines had been produced, on four assembly lines. It was equipped with a seven-cylinder Gnome & Rhone K-7 engine, with 420 HP. Already at that time, an electrically activated bomb carrier was being experimentally built onto it. The trials were successful, but it was never put into serial production. In the "Rogožarski" factory, the Germans found eleven P.V.T.s being revised, with three more in the final stages of production at the Bežanijska Kosa plant. They were all handed over to the Croatian Air Force, and in addition to the aircraft from the first production series, machines from the fourth series were also used. They were equipped with two Darn 7.7mm machine-guns built into the fuselage below the cockpit. A mechanical mark was used for targeting and a

Drugi tip letjelice, koji je dobio taj nosač, jest prijelazni lovački jednosjed R-100, opremljen istim motorom kao i P.V.T. Zbog aerodinamičnih dotjerivanja postizao je nešto veću brzinu. Prototip je poletio potkraj 1938. godine, a u dvije proizvodne serije do lipnja 1939. izrađeno je 25 primjeraka. Njemačka je vojska svih 11 zaplijenjenih zrakoplova R-100 predala na uporabu zrakoplovstvu NDH. Dobili su registarske brojeve od 6501. do 6511. Primjerci druge serije imali su ugrađenu strojnicu tipa Darn. U početku je rabljen prvenstveno za preobuku i vježbu pilota-lovca, ali jačanjem aktivnosti partizanskih snaga, sve češće se koristi za praćenje pokreta njihovih postrojba, a ugradnjom nosača i za bombardiranje iz strmog poniranja. Krajem 1944. godine samo ih je pet bilo u letnom stanju. Posljednju borbenu akciju tim tipom izveo je poručnik Mihajlo Jelak 26. travnja 1944., bombardirajući most na rijeci Kupi pokraj sela Vinice. Pred sam kraj rata sa dva zrakoplova R-100 piloti NDH su prebjegli na partizanska uzletišta Čazma i Čemernica, a dva su zaplijenjena na uzletištu Lučko pokraj Zagreba. Partizani su po jedan primjerek uključili u sastav 111. i 112. vazduhoplovnog puka, a treći je nakon revizije u Zemunu obavljao pomoćne zadatke u "Opitnom centru". Četvrtim se koristio zapovjednik Vazduhoplovne divizije Savo Poljanec. Posljednje letove izvršili su početkom pedesetih godina, kada je



30. Rogožarski R-100, primjerek s nosačem za bombu od 100 kg. Žuta traka oko trupa i donjih površina vrhova krila.

30. A Rogožarski R-100. A machine with a bomb carrier for a 100 kg bomb. A yellow band around the fuselage and lower wing tip surfaces.



31. Rogožarski P.V.T., reg. br. 6607, malih dimenzija i teško uočljiv. Žuta traka oko trupa.

31. Rogožarski P.V.T., serial no. 6607. Small in size and difficult to observe. A yellow band around the fuselage.

machine-gun camera in a specially profiled casing was also built-in. Several machines obtained a carrier for a 100 kg bomb, that was released while diving.

The second type that obtained this carrier was the one-seater intermediate fighter-trainer, R-100, equipped with the same engine as the P.V.T. Due to aerodynamic improvements, it was able to achieve a somewhat greater speed. The prototype was developed towards the end of 1938, and by June 1939, twenty-five machines had been produced, on two assembly lines. The German Army handed over all eleven captured R-100 aircraft for use by the Croatian Air Force. They were given serial numbers 6501 to 6511. Machines from the other series had a built-in Darn machine-gun. In the beginning, it was primarily used for training and practising by fighter pilots. But as Partisan forces grew more active, it was increasingly used for monitoring the movement of their formations, and after the carrier had been built on, for dive-bombing as well. Towards the end of 1944, only five of them were airworthy. The last combat action with this type was performed by 2nd Lieutenant Mihajlo Jelak, on 26th April 1944, when he bombed the bridge on the river Kupa, near the village of Vinica. Just before the war ended, pilots defected with two R-100 aircraft to the Partisan airfields of Čazma and Čemernica, while two were burned at Lučko airfield near Zagreb. The Partisans included one of each in the 111th and 112th Air Force Regiments, and the third, after being revised in Zemun, performed auxiliary missions in the "Testing Centre". The commander of the Air Force Division, Savo Poljanec, used the fourth. The final flights were carried out at the beginning of the fifties, when one of them was presented to the Technical Museum in Belgrade as a training aid. Parts of this aircraft can be found today at the museum at Surčin, near Belgrade.

jedan od njih kao nastavno učilo predan Tehničkom muzeju u Beogradu. Dijelovi te letjelice i danas su u muzeju na Surčinu pokraj Beograda.

Sredinom ožujka 1942. iz Zemuna je počela stizati nova serija popravljenih zrakoplova. U Rajlovac dolazi Blenheim Mk I, Caproni, Avia BH-33 E, Breguet XIX/8, R-100, P.V.T. i M.M. 2. U Zagreb je stiglo nekoliko Bregueta i jedan Potez XXV, namijenjen Banjoj Luci. U Rumu je preletjelo nekoliko Fizira FN s Mercedesovim motorom i Walter motorom, namijenjenih potrebama Zrakoplovne školske pukovnije u Petrovaradinu. Iz Italije u travnju stižu prvi moderniji lovci – devet jednosjednih Fiata G. 50 bis i jedan dvosjed. Dodijeljeni su 16. jatu u Banja Luci, ali ih je pet u narednom razdoblju prebačeno u 1. jato radi obrane Zagreba. Još prije njihova preleta, hrvatska skupina od šest časnika i dočasnika boravila je u Torinu gdje se upoznavała s novim letjelicama i njihovim motorima A 74 RC 38. Iz Italije je dva puta stiglo po pet primjeraka bombardera Caproni Ca 311 M, te 10 lakih zrakoplova A.V.I.A. FL 3. Prema ranije utvrđenom rasporedu, trebali su pojačati jata u 2. zrakoplovnoj luci Sarajevo.

Već krajem svibnja, pet se Capronija našlo u sastavu 3. jata 1. zrakoplovne luke u Zagrebu uz još dva Fizira FP. 2. U to su se vrijeme raspodijelili zrakoplovi unutar jata u 1. skupini, tako da je 1. jato dobilo tipove: deset Bü 133, jedan Aero 2 i dva FP. 2., a 2. jato Poteze, Breguete, R-100 i P.V.T.-e. Raspodjela letjelica unutar jata, skupina i luka bila je vrlo česta i teško ju je pratiti zbog manjkave arhivske građe, što će još više biti izraženo kako se rat bude bližio kraju.

U svibnju 1942. zrakoplovi smješteni na banjalučkom uzletištu svaki su dan streljivom, opremom, hranom i lijekovima opskrbljivali ustaške garnizone u Sanskom Mostu, Ključu, te selima oko Sanice. S jednog od tih letova, 23. svibnja 1942., na partizansko je uzletište Urije, pokraj Prijedora, prebjegao pilot Franjo Kluz sa zrakoplovom Potez XXV, koji je nosio reg. br. 5007. Isti dan, nedugo poslije Kluz, na to je uzletište sletio i Breguet XIX (reg. br. 4251) s pilotom Rudijem Čajavcem i strijelcem M. Jazbecom. To su bili prvi slučajevi napuštanja zrakoplovstva NDH i stavljanja na partizansku stranu. Već 4. lipnja Čajavec i Jazbec, pošto su izbacili promidžbene letke iznad same Banje Luke, bombardirali su uzletište Zalužani na kojem su donedavno prebivali. Tijekom niskog leta, Breguet je pogođen i prinudno se spustio 15-ak kilometara sjeveroistočno od Banje Luke, pokraj sela Kadinjani. Pošto su opkoljeni, Čajavec je izvršio samoubojstvo, a Jazbec je zarobljen i poslije strijeljan. Ostatke srušenog zrakoplova i fotografije jedan je njemački časnik dostavio u Zagreb. Poslije rata ti su dijelovi preneseni u Muzej JNA u Beogradu. Analizirali su se dijelovi platna s nanesenim partizanskim oznakama. Ispod široke bijele trake sa crvenom zvijezdom tragovi su hrvatskog grba s 10 mm širokim obrubom, pa čak i

Around mid-March 1942, a new series of repaired aircraft began arriving from Zemun. A Blenheim Mk I, a Caproni, an Avia BH-33E, a Breguet XIX/8, an R-100, a P.V.T., and an M.M. 2 arrived at Rajlovac. Several Breguets and one Potez XXV, intended for Banja Luka, arrived at Zagreb. Several Fizir FNs, with Mercedes and Walter engines, that were to be used by the Aviation School Regiment at Petrovaradin, flew over to Ruma. In April, the first more modern fighters arrived from Italy – nine one-seater Fiat G.50 bis's, and one two-seater. They were assigned to the 16th Squadron in Banja Luka, but in the following period, five were transferred to the 1st Squadron to defend Zagreb. Even before they flew over, a Croatian group of six officers and non-commissioned officers visited Turin, where they were informed of the new apparatuses and their A 74 RC38 engines. Twice, five Caproni Ca 311 M bombers, and ten A.V.I.A. FL 3 light aircraft arrived from Italy. According to an earlier timetable, they were supposed to have reinforced the squadrons at the 2nd Air Base Sarajevo.

Already towards the end of May, five Capronis were included in the 3rd Squadron of the 1st Air Base at Zagreb, together with two more Fizir FP. 2s. At that time, the aircraft within the squadrons of the 1st Group were being reallocated so that the 1st Squadron got: ten Bü 133s, one Aero 2, and two FP. 2s, while the 2nd Squadron got the Potezs, Breguets, R-100s, and the P.V.Ts. Reallocation of aircraft within squadrons, groups, and air bases, was very frequent, and difficult to trace, owing to faulty archival material, and this became especially evident towards the end of the war.

In May 1942, the aircraft that were located at Banja Luka airfield supplied each day the Ustasha garrisons in Sanski Most, Ključ, and the villages around Sanica, with ammunition, equipment, food, and medicines. On 23rd May 1942, during one of these flights, pilot Franjo Kluz, in a Potez XXV, bearing the serial number 5007, defected to the Partisan airfield at Urije, near Prijedor. On the same day, a little after Kluz, a Breguet XIX (serial no. 4251) with pilot Rudi Čajavec, and gunner M. Jazbec, landed at this airfield. These were the first cases of deserting the Croatian Air Force and defecting to the Partisan side. Already on 4th June, after dropping promotional leaflets above Banja Luka, Čajavec and Jazbec bombed the Zalužani airfield, where they had only recently been stationed. During low-level flight, the Breguet was hit and crash-landed about 15 kilometres northeast of Banja Luka, near the village of Kadinjani. After being surrounded, Čajavec committed suicide, and Jazbec was captured and subsequently shot. A German officer delivered the remains of the downed aircraft, together with a photograph, to Zagreb. After the war, these parts were transferred to the Museum of the Yugoslav National Army, in Belgrade. Parts

tragovi prvobitne oznake Kraljevine Jugoslavije. Registarski broj je postojao i u trenutku rušenja.

Kluzov Potez XXV prvobitno nije bio naoružan, pa je na njega postavljena njemačka strojica 7.9 mm. Nosače za bombe također nije imao, pa su se izbacivale ručno iz zadnje kabine. Tim je zrakoplovom Kluz izvršio pet borbenih letova, pri kojima su se bacali leći iznad Dubice i Kostajnice, a bombardiran je Dvor, Bosanski Novi i prostor sjeverno od Kostajnice. Letjelica je tijekom izvršavanja tih letova bila obilježena svim standardnim oznakama NDH, a kao i Breguet, bila je obojena standardnom maslinastozelenom bojom, kao i većina sličnih zrakoplova u Kraljevini Jugoslaviji.

Odmah nakon spoznaje da su dva zrakoplova prešla na partizansku stranu, zrakoplovstvo NDH je poduzelo niz izvidničkih letova radi utvrđivanja njihove točne lokacije i uništenja. Iz jednog P.V.T.-a snimljen je maskirani Čajavčev Breguet, ali se nije uspjela utvrditi točna lokacija. Partizani su, osim dobrog prikrivanja, izradili i dvije drvene makeje koje su uništene napadom iz zraka 29. svibnja. Međutim, kako su "navodno uništeni" zrakoplovi ponovno poletjeli, postojala je bojazan da će napasti i sam glavni grad Zagreb. Zbog toga su organizirane lovačke ophodnje sa tri tipa R-100 iz II. serije, naoružani strojnicama. Nadzirali su prilaze gradu iz smjera Prijedora, odakle se očekivao napad. Na uzletištu u Dubici također je organizirano nekoliko zrakoplova kojima je uništenje partizanskih letjelica bio prvenstveni cilj. Zagreb nije napadnut, jer je i Kluzov Potez uništio njemački zrakoplov FW 58, kojim je pilotirao poručnik Bumbov.

Njemačka je vojska na području istočne Bosne (Sarajevo – Kladanj – Zvornik – Vlasenica) 17. siječnja 1942. pokrenula veliku operaciju (tzv. "druga neprijateljska ofenziva"). Kako u to vrijeme na tom području nije bilo značajnijih njemačkih zračnih snaga, na hrvatsko je zrakoplovstvo prenesena cjelokupna zračna podrška postrojama na zemlji. Sudjelovanje talijanskog zrakoplovstva pokazalo se tragičnim za njemačke postrojbe, jer je jedan talijanski bombarder napao njihove položaje na području Vlasenice. Nakon tog incidenta, Talijanima su letovi zabranjeni. Letjelice iz 2. zrakoplovne luke tijekom siječnja izvršile su 121 let. Iako je napredovanje brzo zaustavljeno, bez konačnog uspjeha u slamanju partizanskog pokreta na tom području, pojačane zračne aktivnosti nastavljene su i u sljedećim mjesecima. U veljači je tako bilo stotinjak, a u ožujku čak 350 polijetanja. U tom je mjesecu zrakoplovstvo stalnom opskrbom iz zraka uspjelo održati ustaško-domobranski garnizon u Rogatici, koji se nalazio u potpunu okruženju. Potezi, Bregueti i Avia Fokker F-IX slijetali su pod streljačkom vatrom na improvizirane piste i iskrcavali streljivo i drugi

of the linen on which Partisan markings had been applied were analysed. Beneath the wide white strip with a red star, they found traces of the Croatian coat-of-arms with a 10 mm wide border, and even traces of the original markings of the Kingdom of Yugoslavia. The number survived even after it crashed.

In the beginning, Kluz's Potez XXV was not armed, so a German 7.9mm machine-gun was attached to it. It did not have a bomb carrier either, and so they were dropped manually from the rear cabin. Kluz performed five fighter sweeps during which leaflets were dropped above Dubica and Kostajnica, while Dvor, Bosanski Novi, and the area north of Kostajnica, were bombed. During these missions this aircraft carried all the standard Croatian markings, and, as with the Breguet, was coloured in a standard olive green colour, as were most similar aircraft in the Kingdom of Yugoslavia.

Immediately after the news that two aircraft had defected to the Partisans, the Croatian Air Force undertook a series of reconnaissance flights, in order to determine their precise location, and to destroy them. Čajavec's camouflaged Breguet was filmed from a P.V.T, but could not be precisely located. In addition to being well hidden, the Partisans made two wooden scale models, that were destroyed during an aerial attack on 29th May. However, since the "allegedly destroyed" aircraft took off again, it was feared that they would attack the capital itself, Zagreb. Therefore, fighter patrols were organised with three R-100 types from the 2nd Group, armed with machine-guns. They monitored approaches to the city, from the direction of Prijedor, from where the attack was expected. Several aircraft, primarily used for destroying Partisan aircraft, were also organised at the airfield in Dubica. Zagreb was not attacked, because Kluz's Potez destroyed the German FW 58 aircraft, piloted by 2nd Lieutenant Bumbov.

On 17th January 1942, in the area of Eastern Bosnia (Sarajevo-Kladanj-Zvornik-Vlasenica) the German Army launched a large operation (the so-called "Second Enemy Offensive"). Since there were no significant German air forces in this area at that time, the Croatian Air Force was assigned the entire aerial support mission for formations on the ground. The participation of the Italian Air Force proved tragic for the German formations, because one of their bombers attacked German positions in the area of Vlasenica. After this incident, Italian flights were prohibited. During the month of January the aircraft from the 2nd Air Base carried out 121 take-offs. Although the advance was quickly stopped, without success in breaking the Partisan movement in this area, intensified aerial activities continued into the following months. In February, there were around 100, and in March, even 350 take-offs. In

materijal ne gaseći motore. Dana 23. svibnja srušen je jedan Potez XXV, a posada je poginula. Tri dana poslije, zrakoplov Avia Fokker F-IX je oštećen, ali je uspio doletjeti do Rajlovca. Potezima i Breguetima stalno su bombardirani partizanski položaji oko Rogatice. Njemačko-hrvatske snage uspjele su 27. travnja osloboditi garnizon. Zrakoplovi iz 2. zrakoplovne luke sve do lipnja pojačano su djelovali na tom području. Letjelice iz 1. zrakoplovne luke u tom su razdoblju uglavnom bile angažirane na području Korduna u Hrvatskoj.

Od zrakoplova iz sastava 2. zrakoplovne luke, 30. svibnja 1942., osnovana je posebna postrojba, nazvana "Skupina Cenić". U njezinu je sastavu bilo devet letjelica (dvije Avie BH-33 E, reg. br. 3302 i 3304, dva P.V.T.-a, reg. br. 6602 i 6613, dva R-100, reg. br. 6508 i 6502, jedan Potez XXV, reg. br. 5009, jedan Breguet XIX, reg. br. 4522 i jedna A.V.I.A. FL 3., reg. br. 8103). Za potrebe te postrojbe određeno je devet pilota, jedan izvidnik, jedan bombardier-strijelac i 16 mehaničara. Uza zrakoplove je dobiveno nešto pričuvnih dijelova i alata, te 1 500 komada streljiva 7.7 mm za strojnice modela Darn. Smještena je u blizini Banje Luke. Pukovnik Ivan Cenić postavljen je za zapovjednika, a osnovna zadaća skupine bila je stalna borba protiv narastajućih partizanskih snaga, osobito na području planine Kozare. Najveći intenzitet letova ostvaren je u razdoblju njemačko-hrvatske ofenzive na tom području, od 10. lipnja do 30. srpnja 1942. Službenim utemeljenjem 5. zrakoplovne luke, Banja Luka je ušla u njezin sastav (1. lipnja 1942.).

U 1. skupini u Zagrebu u to je vrijeme osnovano 19. promidžbeno jato, koje je u svoj sastav uključilo modele: deset FL 3, jedan RWD XIII i jedan Fi 156C. Počeli su i radovi na izgradnji zrakoplovne luke u Požezi, ali ona nikada nije službeno osnovana, već je korištena kao pomoćno uzletište.

Isporuke popravljenih zrakoplova nastavljale su se iz Zemuna u drugoj polovini lipnja. U 2. zrakoplovnu luku raspoređuju se tri Blenheima Mk I (reg. br. 1502, 1503 i 1507), jedna Avia BH-33 E (reg. br. 3306) i dva R-100 (tvornički brojevi: 709 i 716).

Pojedini zapovjednici kopnenih postrojbi zahtijevali su za svoje potrebe posebne zrakoplove. U srpnju 1942. jedan model Bü 133 iz 1. zrakoplovne skupine (reg. br. 7706) predan je za službene potrebe zapovjedniku III. gorskog zdruga, zrakoplovnom pukovniku Dragutinu Rupčiću. Taj su zrakoplov održavali mehaničari "Skupine Cenić", odakle je dobivao i gorivo. Iz Zagreba u Banju Luku njime je preletio pukovnik Pavao Cenić. Početkom listopada letjelica je raspoređena u sastav 18. jata u Banjoj Luci.

this month, the Air Force managed to sustain the besieged Ustasha-Home Guard garrison at Rogatica, with constant airlifts. Potezs, Breguets, and Avia-Fokker F-IXs would land under machine-gun fire on improvised airstrips, unload ammunition, and other materiel, while keeping their engines running. On 23rd May one Potez XXV was shot down and its crew were killed. Three days later, an Avia-Fokker F-IX aircraft was damaged, but managed to fly to Rajlovac. Potezs and Breguets constantly bombed the Partisan positions around Rogatica. The German-Croatian forces managed to free the garrison on 27th April. The aircraft from the 2nd Air Base were increasingly active in this area, right up to the month of June. During that time, the aircraft from the 1st Air Base were mostly employed in the area of Kordun, in Croatia.

On 30th May 1942, a special formation called "The Cenić Group" was established with aircraft from the 2nd Air Base. It consisted of nine aircraft (two Avia BH-33 Es, serial nos.: 3302 and 3304, two P.V.Ts, serial nos.: 6602 and 6613, two R-100s, serial nos.: 6508 and 6502, one Potez XXV, serial no. 5009, one Breguet XIX, serial no. 4522, and one A.V.I.A. FL 3, serial no. 8103). Ten pilots, one observer, one bomber-gunner, and sixteen mechanics were assigned to this formation. In addition to the aircraft, some spare parts and tools were obtained, as well as 1,500 rounds of 7.7mm ammunition for the Darn machine-guns. It was located near Banja Luka. Colonel Ivan Cenić was appointed commander, and the group's primary task was to constantly fight the growing Partisan forces, especially in the area of Kozara Mountain. The greatest intensity of flights was achieved during the German-Croatian offensive in this region, from 10th June till 30th July 1942. With the official establishment of the 5th Air Base Banja Luka, the group became a part of it (1st June 1942).

At that time, within the 1st Group at Zagreb, the 19th Promotional Squadron was formed and included: ten FL 3s, one RWD XIII, and one Fi 156C. Work was started on building the air base in Požega, but it was never officially established, and so was used as an auxiliary airfield.

Deliveries of repaired aircraft continued from Zemun in the second half of June. The 2nd Air Base was assigned three Blenheims Mk I (serial nos. 1502, 1503 and 1507), one Avia BH-33 E (serial no. 3306) and two R-100s (serial numbers: 709 and 716).

Certain commanders of ground formations demanded special aircraft for their needs. In July 1942, one Bü 133 model from the 1st Air Force Group (serial no. 7706) was handed over for official use by the commander of the III Mountain Corps, Air Force Colonel Dragutin Rupčić. The mechanics of "The Cenić Group" maintained

Dva pričuvna pilota 9. srpnja prisilila su Zdenka Gorjupa da s uzletišta u Rajlovcu, nakon probnog leta prebjegne u Tursku Blenheimom Mk I (reg. br. 1506). Nekoliko mjeseci nakon toga, 2. listopada, istim tipom zrakoplova (reg. br. 1502) tri su radnika tvornice "Ikarus" sa zemunskog uzletišta također prebjegla u neutralnu Tursku.

Potkraj srpnja pilot poručnik Šimun Kvarantan iz Sarajeva je doletio u Zagreb tromotornu Avia-Fokker F-VIb-3m (reg. br. 1903). Pilot i zrakoplov privremeno su dodijeljeni Upravi letjelišta Zagreb zbog potreba otvaranja redovite zračne linije Zagreb – Sarajevo – Mostar. Letovi su počeli 1. kolovoza. U Aviu je ugrađen radio uređaj, skinut s oštećenog Capronia Ca 311M (reg. br. 1208).

Iz izvješća o 1. zrakoplovnoj skupini tijekom srpnja može se uočiti vrlo intenzivna djelatnost, usmjerena na opskrbu hranom, streljivom i prijevozom pošte vojarnama u Bihaću i Udbini. Osim Bregueta XIX (reg. br. 4523 i 4526) i Poteza XXV (reg. br. 5001), korišten je i zrakoplov Avia-Fokker F-VIb-3m (reg. br. 1901). Pojedini od tih zrakoplova u istom su danu s istom posadom polijetali po nekoliko puta. Za to su naročito bile pogodne letjelice Avie-Fokkeri, koje su stigle iz Praga. Prije rata letjele su u sastavu češke civilne organizacije "Česka letecka společnost". Osim modela F-VIb-3m, nabavljeni su i modeli F-IX i F. 18. Model F. 39 podrijetlom iz Kraljevine Jugoslavije, rabljen je za bombardiranje. Nešto prije, zahvaljujući novopridošlim zrakoplovima, u 5. zrakoplovnoj luci osnovano je 13. jato. Početkom kolovoza u Banju Luku se iz Velike Gorice, s pomoćnog uzletišta, preseljava 3. jato iz sastava 1. zrakoplovne skupine. Zrakoplovi su izvršili prelet, a osoblje i oprema željeznicom su preko Okučana stigli na odredište. Tom je jatu priključen i jedan Caproni, koji je stigao iz Sarajeva te dva nova pilota. Iz Zagreba je željeznicom poslano 15 000 litara goriva, 1 500 litara motornog ulja, 100 avionskih bombi od 100 kg, 10 000 bombi od 2 kg, te veća količina streljiva. Nove količine ubojnih sredstava iz matične baze slale su se u zavisnosti od potreba, odnosno potrošnje. Jato je i dalje bilo u sastavu 1. skupine, ali je u taktičkom pogledu bilo podređeno njemačkom zapovjedništvu "Kampfgruppe Westbosnien".

U to je vrijeme u 1. skupinu stigao jedan popravljeni zrakoplov Do 17 iz Zemuna. Treća je skupina u Sarajevu 20. kolovoza doživjela ozbiljan gubitak, jer su partizani srušili jedini primjerak modela Savoie-Marchetti S. 79. Nakon oštećenja, prinudno je sletio kod sela Vukovsko u blizini Mrkonjić Grada. Posada je zarobljena, a pilot Romeo Adum je 19. ožujka 1943. razmijenjen, te se vratio u sastav zrakoplovstva.

Tijekom rujna u pogonima "Wiener Neustadter Flugzeugwerke" u Zemunu popravljeno je svih pet Poteza, koji su poslani iz Sarajeva. Raspoređuju se, potom, u 2. zrakoplovnu luku (reg. br. 5012 i 5013), 1. zrakoplovnu luku (reg. br. 5010 i 5011), te 5. zrakoplovnu luku (reg. br. 5025).

this aircraft and also provided its fuel. Colonel Pavao Cenčić flew it from Zagreb to Banja Luka. At the beginning of October, the aircraft was assigned to the 18th Squadron at Banja Luka.

On 9th July, two reserve pilots forced Zdenko Gorjup to defect to Turkey, from the airfield at Rajlovac, in a Blenheim Mk I (serial no. 1506), after a test flight. Several months later, on 2nd October, three workers from the "Ikarus" factory also defected to neutral Turkey, from the airfield at Zemun, with the same type of aircraft (serial no. 1502).

Towards the end of July, Flight 2nd Lieutenant Šimun Kvarantan flew from Sarajevo to Zagreb, in a three-engine Avia Fokker F-VIb-3m (serial no.1903). The pilot and the aircraft were temporarily assigned to the Zagreb Airfield Administration, owing to the necessity of opening a regular Zagreb-Sarajevo-Mostar air route. The flights commenced on 1st August. A radio that had been removed from a damaged Caproni Ca 311M (serial no. 1208) was built into the Avia.

The report of the 1st Air Force Group during the month of July shows very intense activity aimed at supplying the garrisons in Bihać and Udbina with food, ammunition, and mail. Apart from the Breguet XIXs (serial nos. 4523 and 4526) and a Potez XXV (serial no. 5001), an Avia-Fokker F-VIb-3m (serial no. 1901) was also used. Some of these aircraft carried out several flights with the same crew and on the same day. Especially suited for this were the Avia-Fokker aircraft that had arrived from Prague. Prior to the war, the Czech civil organisation "Česka letecka společnost" had flown them. In addition to the F-VIb-3m model, models F-IX and F. 18 were also acquired. Model F. 39, that originated from the Kingdom of Yugoslavia, was used for bombing. Somewhat earlier, due to newly arrived aircraft, the 13th Squadron was established at the 5th Air Base. At the beginning of August, the 3rd Squadron from the 1st Air Force Group was transferred from the auxiliary airfield in Velika Gorica, to Banja Luka. The aircraft flew over, while staff and equipment arrived by rail, via Okučani. To this squadron, a Caproni was added, that had arrived from Sarajevo, as well as two new pilots. 15,000 litres of fuel, 1,500 litres of engine oil, 100 aerial bombs of 100 kg, 10,000 bombs of 2 kg, and a large quantity of ammunition, were sent from Zagreb by rail. New quantities of live ammunition were sent from the principle base, as per needs, i.e. expenditure. The squadron was still a part of the 1st Group, but from the tactical viewpoint, it was attached to the German Command, "Kampfgruppe Westbosnien".

At that time, a repaired Do 17 aircraft from Zemun joined the 1st Group. The 3rd Group in Sarajevo suffered serious losses on 20th August, because the Partisans

U listopadu je popravljena serija od sljedećih pet Poteza (reg. br. 5005, 5015, 5016, 5026 i 5027). Raspoređuju se u sve tri zrakoplovne luke, a jedan primjerak dobiva i pilotska škola u Borovu.

Treće jato privremeno se nalazilo u Banjoj Luci, a u listopadu je podređeno potrebama 714. njemačke divizije. U studenome se vratilo u matičnu bazu. Cjelokupna oprema i ubojna sredstva ostavljena su 5. zrakoplovnoj luci. Osoblje se preko Slunja željeznicom vratilo u Zagreb.

Zbog pojačanih partizanskih djelovanja mnoge se letjelice iz 1. zrakoplovne luke ponovno premiještaju na uzletišta u Sarajevu i Banjoj Luci. U 5. zrakoplovnu luku stigla su tri Fiata G. 50 bis (reg. br. 3502, 3503 i 3505), dva R-100 i dva FL 3. Sarajevska zrakoplovna luka dobila je četiri Bü 133, dva P.V.T.-a i jedno ga Fizira FN s Mercedesovim motorom.

Odnosi s talijanskom stranom i u 1942. godini su često napeti. Talijansko vojno izaslanstvo u Zagrebu prosvjedovalo je što hrvatski zrakoplovi bez odobrenja talijanskog VI. korpusa slijeću na uzletište Grude. Jedan od razloga koji navode jest vrlo loše stanje poletno-sletne staze, koja se u jesenjim i zimskim mjesecima puni vodom.

Iako je letačka aktivnost iz razumljivih razloga u studenome i listopadu smanjena, određeni broj zrakoplova ipak, zbog manjih ili većih oštećenja, odlazi u Zemun na popravak. Dio radova obavlja se i u samim lučkim radionicama. U svim bazama prepravljale su se repne drljače na Potezima, Breguetima i P.V.T.-ima, kako bi se manje oštećivale vlažne travnate uzletno-sletne staze. Nakon tih preinaka, slijetanje je bilo nešto duže, što je na vlažnoj travi stvaralo teškoće. Na to su upozoravani svi piloti, ali manje nezgode se nisu mogle izbjeći.

Zapovjednik jedriličarske škole na Butmiru M. Lipovšćak u studenome je doživio vrlo zanimljivu ratnu epizodu. Naime, pilot iz škole Šime Miletić SIM-om X podigao ga je u jedrilici Komar bis na visinu 900 m, nakon čega se jedrilica otkočila i krenula na prelet sve do Borova. Kako su meteorološke prilike bile vrlo povoljne, namjeravao se postići rekordan prelet. Međutim, nakon 2.45 sati leta, jedrilica je izgubila povoljna toplinska strujanja te se prinudno spustila pokraj sela Blaževići na planini Ozren, koju su nadzirale četničke snage. Pilot je zarobljen, a zbog visokog čina, lokalni četnički zapovjednici pokušali su ga odvesti u stožer četničkog vođe Dragoljuba Mihailovića. Tijekom noći zapovjednik škole je uspio pobjeći i vratiti se u Sarajevo. Nakon tog neugodnog događaja, na Butmiru je potom isprobavao mogućnosti teglenja dviju jedrilica istim zrakoplovom.

Na susjedno uzletište u Rajlovcu, početkom prosinca, prebačen je Blenheim, reg. b. 1507. Tu je već duže vrijeme bio i jedan primjerak francuskog dvomotornog bombardera Amiot 143. Zbog nedostatka pričuvnih dijelova, praktično nije ni letio.

shot down their only Savoia-Marchetti S. 79. After sustaining damage, it crash-landed at the village of Vukovsko, near Mrkonjić-Grad. The crew were captured, and the pilot, Romeo Adum, was exchanged on 19th March 1943, and returned to the Air Force.

During September, at the works of the "Wiener Neustadter Flugzeugwerke" in Zemun, all five Potezs were repaired and sent to Sarajevo. Subsequently, they were assigned to the 2nd Air Base (serial nos. 5012 and 5013), to the 1st Air Base (serial nos. 5010 and 5011) and the 5th Air Base (serial no. 5025).

In October, the next series of five Potezs were repaired-serial nos. 5005, 5015, 5016, 5026, and 5027. They were assigned to all three air bases and one was given to the Pilot School in Borovo.

The 3rd Squadron was temporarily located in Banja Luka, and in October it was attached to the 714th German Division. It returned to its principle base in November. All equipment and live ammunition was left to the 5th Air Base. The staff returned to Zagreb by rail, via Slunj.

Owing to Intensified Partisan activities, many aircraft from the 1st Air Base were transferred once again to the airfields in Sarajevo and Banja Luka. Three Fiat G. 50 bis's (serial nos. 3502, 3503 and 3505), two R-100s, and two FL 3s arrived at the 5th Air Base. Sarajevo Air Base received: four Bü 133s, two P.V.T.s, and one Fizir FN with a Mercedes engine.

The relationship with the Italian side was often strained in 1942 as well. Their military delegation in Zagreb protested that Croatian aircraft were landing at Grude airfield without permission from the Italian VI corps. One of the reasons given, was the very poor state of the runway, which used to fill up with water in the autumn and winter months.

Although flying activity decreased in November and October, for the understandable reason of major and minor damages, a certain number of aircraft were sent for repairs to Zemun. Part of the work was performed in the air base workshops themselves. In all the bases, the tail harrows on the Potezs, Breguets, and P.V.T.s, were adapted so that the moist grassy airstrips would be damaged less. After these adaptations, landings took a little longer, causing difficulties on the moist grass. All pilots were warned of this, but minor accidents could not be avoided.

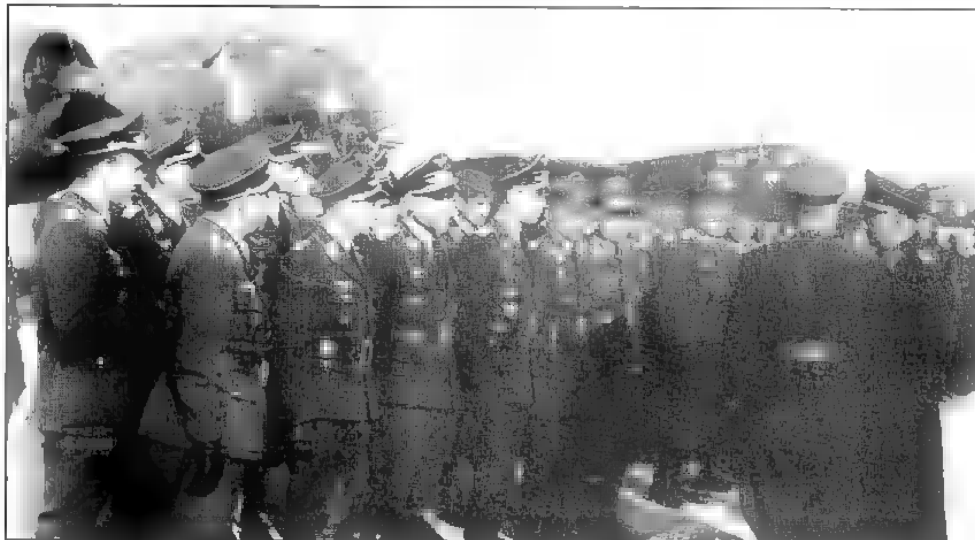
The commander of the Glider School at Butmir, M. Lipovšćak, had a most interesting experience in November. Namely, one of the school's pilots, Šime

U NDH je stigao iz Kraljevine Jugoslavije, gdje su ga preletjeli francuski piloti, nakon napadaja Njemačke na njihovu zemlju. Što se na kraju dogodilo s tim zrakoplovom, nije poznato, iako je autoru jedan preživjeli pilot iz Rajlovca iznio mogućnost da je i ta letjelica preletjela u Tursku. No to nije vjerojatno zbog već navedenih razloga. Nekoliko letova na tom zrakoplovu izvršio je pilot Romeo Adum, koji je pilotirao i s modelom S 79.

Nakon što je osam Dornijera Do 17 Z-2 iz nekadašnjeg 15. (Kroat) Stafela/KG 53 stiglo u Zagreb 30. studenoga s Istočnog bojišta, osoblje je sve do 14. prosinca 1942. uređivalo svoje novo boravište i zrakoplove. Poznati registarski brojevi pristiglih zrakoplova bili su: A1+EZ, A1+FZ, A1+JZ, A1+C (ili G)Z.

Prva borbeni zadaća obavljena je 15. prosinca, kada je jedan Dornier izviđao područje oko Banje Luke s visine od 1 000 m. Tri dana poslije, još je jedan zrakoplov na sličnoj zadaći letio iznad područja Bjeljina – Zvornik – Tuzla, kada je u niskom letu (20-50 m) strojničkom vatrom napao selo Rošan.

Dana 19. i 20. prosinca vodile su se jake borbe na području oko Sanskog Mosta. Dornieri su izvršili četiri napadaja u kojima je sudjelovalo devet zrakoplova. Dio ciljeva pilotima su označavale hrvatske pješačke postrojbe. Utrošeno je 60 bomba SC-50. Narednih 14 dana nije se letjelo zbog loših vremenskih prilika.



32. Dornier Do 17 Z-2. U 15. (Kroat) Stafel/KG 53. Postrojavanje nakon povratka u Zagreb. Uočavaju se različito obojeni spinneri elisa.

32. Dornier Do 17 Z-2, 15th (Kroat) Stafel/KG 53. Lining up after returning to Zagreb. The multi coloured propeller spinners are noticeable.

Miletić, lifted him in a Komar bis glider, with a SIM X, to a height of 900 m, after which, the glider unhooked itself and began to fly off, all the way to Borovo. As meteorological conditions were most favourable, a record flight was intended. However, after flying 2.45 hours, the glider lost the favourable thermal currents and was forced to land near the village of Blaževići, on the Ozren Mountain, controlled by hostile Chetnik forces. The pilot was captured, and owing to his high rank, the local Chetnik commanders tried to take him to the headquarters of the Chetnik leader, Dražen Mihajlović. During the night the school's commander managed to escape, and returned to Sarajevo. After this unpleasant event, he tested the possibility of towing two gliders with the same aircraft, at Butmir.

At the beginning of December, a Blenheim, serial no. 1507, was transferred to the neighbouring airfield at Rajlovac. A French Amiot 143, twin-engine bomber, had been there for some time. Due to a lack of spare parts, it was practically never flown. It had arrived in Croatia from the Kingdom of Yugoslavia, to where French pilots had flown it after Germany attacked their country. It is not known what became of this aircraft, although a surviving pilot from Rajlovac told the author that it was possible the aircraft had been flown over to Turkey. However, this is not probable, for reasons already stated. Pilot Romeo Adum, who also piloted the S. 79 model, performed several flights on this aircraft.

After eight Dornier Do 17 Z-2s from the former 15th (Kroat) Stafel/KG 53 had arrived at Zagreb, from the Eastern Front, on 30th November, the staff worked on putting their new quarters and aircraft into order, until 14th December 1942. The serial numbers of the aircraft known to have arrived were: A1 + EZ, A1 + FZ, A1 + JZ, A1 + C(or, G)Z.

The first combat mission was carried out on 15th December, when a Dornier was reconnoitring the area around Banja Luka, from a height of 1000 m. Three days later, another aircraft on a similar mission was flying above the area of Bjeljina-Zvornik-Tuzla, when, flying low (20-50 m), it attacked the village of Rošan with machine-gun fire.

On 19th and 20th December, intense battles took place in the area around Sanski Most. The Dorniers performed four attacks, in which nine aircraft participated. Croatian infantry formations marked some of the targets for the pilots. A total of sixty SC-50 bombs were used. There were no flights in the following fourteen days, owing to unfavourable weather.



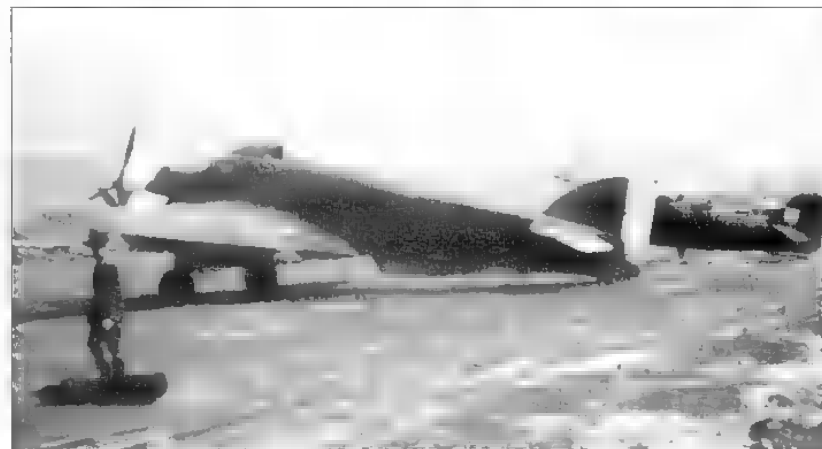
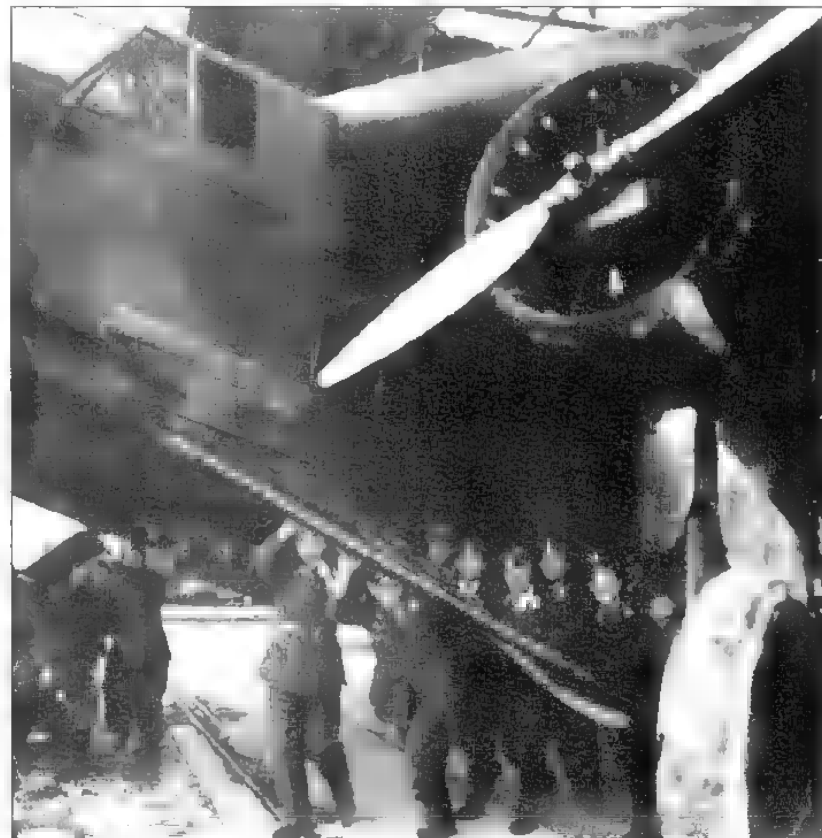
33. i 34. Avia Fokker F. 39 u prvom razdoblju korištenja u NDH zadržao je staru maskirnu shemu iz Kraljevine Jugoslavije. Obratiti pozornost na gornji dio trupa iznad kabine koji je ■ osnovnoj maskirnoj shemi, jer će taj detalj kasnije biti izmijenjen. Registarski broj još nije napisan, kao ni žuta traka oko trupa. Državni su grbovi nacrtani na standardnim položajima.

33. and 34. An Avia Fokker F.39. In the first period of its use in Croatia, it kept the old camouflage pattern of the Kingdom of Yugoslavia. Notice that the upper part of the fuselage above the cockpit is in the basic camouflage scheme, because this detail was to be changed later. The serial number had not been applied yet, and neither had the yellow band around the fuselage. The state coat-of-arms had already been applied in the standard places.



35. i 36. Savoia Marchetti S. 79 u dvobojnoj maskirnoj shemi složenoj od dviju nijansi tamno zelene boje. Pokopci motora, veći dio spinera elisa, kormilo pravca i dubine su sigurno žute boje, a prema nekim indicijama vrlo vjerojatno su i cijele donje površine iste boje. Sami vrhovi spinera su obojeni za sada nepoznatim bojama.

35. and 36. A Savoia Marchetti S.79 in a two-colour camouflage pattern that consisted of two shades of dark green. The engine cowlings, most of the propeller spinners, the rudder, and the elevator were definitely yellow and there are indications that the entire lower surfaces were most probably the same colour. The tips of the spinner were painted in, as yet, unknown colours.





37. Detalj maskiranja na trupu F. 39 popularno zvane "Baba roga"

37. Camouflage details on the fuselage of a F.39, popularly called Baba roga (The Witch)



38. I 39. Na raniju maskirnu shemu F. 39 nanesene su svjetlije crte. Reg. br. 1801 prije te izmjene u bojenju bio je bijeli. Unutar njega naknadno se upisuje isti broj crnom bojom, ali nešto manjih dimenzija, tako da se sada može primjetiti bijeli obrub. Dio trupa iznad kabine vjerovatno je prebojen srebrnom bojom zbog smanjenja zagrijavanja unutrašnjosti kabine. Vertikalni stabilizator je također prebojen srebrnom bojom, a nacrtana je i žuta traka oko zadnjeg dijela trupa. U lijevom kutu se primjećuje tamno obojan RWD XIII sa žutom trakom oko trupa, a u desnom se uglu može uočiti A.V.I.A. FL 3 s crtežom dvorca na nosu.

38. and 39. Lighter lines have been painted over the previous camouflage of this F.39. Before this colouring change, the serial number 1801 was white. Within it, subsequently the same number was drawn in black, but somewhat smaller in size, so that a white border can be observed. The part of the fuselage above the cockpit was probably repainted in silver, to reduce overheating of the cockpit interior. The rudder was also repainted in a light colour and a yellow band was drawn around the rear end of the fuselage. In the left corner, one can see a dark coloured RWD XIII, with a yellow band around the fuselage, while in the right corner, there is a A.V.I.A. FL 3, with a castle emblem on its nose.





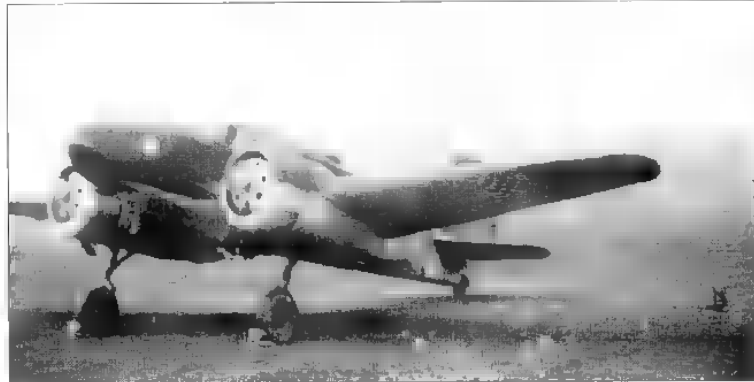
40. Talijanski zrakoplovi Imam Ro 41 korišteni su u pilotskoj školi ■ Mostaru za obuku hrvatskih pilota. Nosili su talijanske oznake.

40. The Italian Imam Ro 41 aircraft was used in the Pilot School at Mostar for training Croatian pilots. They bore Italian markings.



41. Njemački školski zrakoplov Focke Wulf FW 44 korišten je u školi AB-123 za izobrazbu hrvatskih pilota. Uočava se oznaka škole na trupu (reg. oznaka CX+BF).

41. The German Focke Wulf FW 44 training aircraft was used at the AB-123 School, for training Croatian pilots. The school emblem can be noticed on the fuselage (serial number CX+BF).

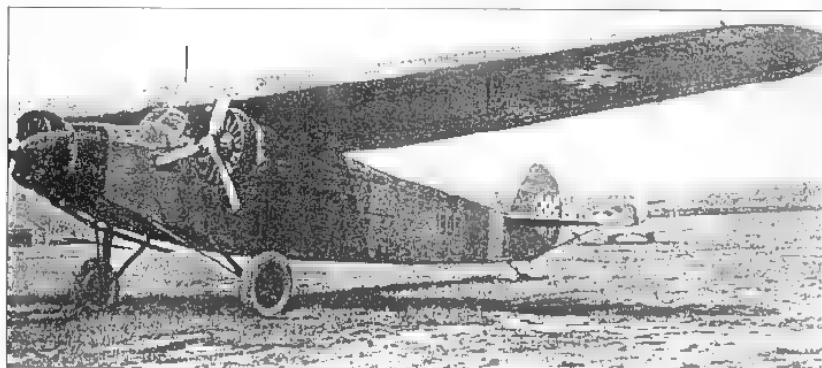


42, 43. i 44. Serija fotografija Caproni Ca 310 Libeccia. Može se uočiti da je maskirna shema dvubojna te da su žute površine donjih dijelova krila dosta velike. Od registarskog broja može se prepoznati samo zadnja znamenka "2". Žuta je traka oko stražnjeg dijela trupa. Zrakoplovom je pilotirao Ivan Matijeka, a nesreća se dogodila zbog sabotaze, tj. ubacivanja vode u spremnike goriva.

42, 43. and 44. A series of photographs of a Caproni Ca 310 Libeccia. Notice that the camouflage scheme was two-coloured and that the yellow surfaces of the lower parts of the wing were quite large. Only the last number "2" can be discerned of the serial number. There was a yellow band around the rear end of the fuselage. Ivan Matijek piloted this aircraft, and the accident happened due to sabotage, i.e. pouring water into the fuel tank.



45. Školski zrakoplov Saiman 200, također je korišten za obuku u Mostaru.
45. The Saiman 200 training aircraft was also used for instruction at Mostar.

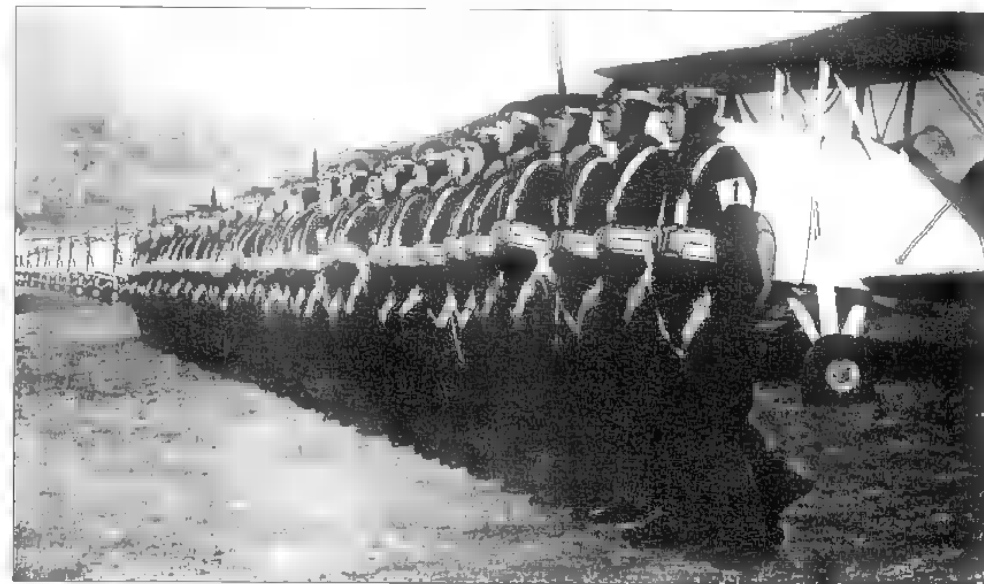


47. Avia Fokker F VII b 3m, reg. br. 1903, koja je od 1. kolovoza 1942. letjela na zračnoj liniji Zagreb – Sarajevo – Mostar. Poklopci motora su obojeni tamnom, vjerojatno crnom bojom. Uočava se žuta traka oko trupa, te ista boja na donjoj površini vrhova krila.

47. Avia Fokker F VII b 3m, with serial number 1903, that flew on the route Zagreb-Sarajevo-Mostar from 1st August 1942. The engine cowling was painted in a dark colour, probably black. A yellow band around the fuselage can be observed, as well as lower wing tip surfaces in the same colour.

48. Pilot narednik S. Miletić u Fiesleru Fi 156 na zračnom polju Raflovač 1942. Ova zrakoplov u Hrvatskoj se popularno zvao "Mali Fiesler".

48. Flight Sergeant S. Miletić in a Fiesler Fi 156 at Raflovač airfield in 1942. In Croatia, this aircraft was popularly called Mali Fiesler (Little Fiesler).



46. Prvi naraštaj pilota Hrvatskog bojnog zrakoplovstva u Mostaru. U pozadini su zrakoplovi Saiman 200.
46. The first class of recruits of the Croatian Combat Air Force at Mostar. In the background there are Saiman 200 aircraft.





49. Vojskovoda Slavko Kvaternik i general Vladimir Kren u razgovoru ispred Avie Fokker F VII 3 m
49. Marshal Slavko Kvaternik and General Vladimir Kren talking in front of an Avia Fokker F VII 3 m.



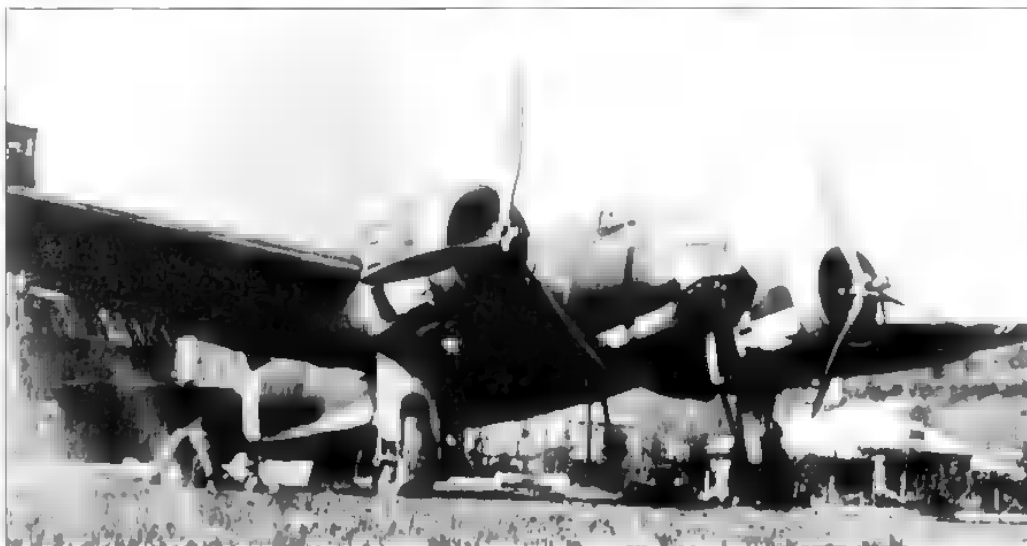
50. Avia Fokker F VII b 3 m nakon dolaska u Hrvatsku. Na njoj su još češke civilne oznake. Dio registracije koji se može identificirati je ...AABO. Na trupu se nalazi natpis "C. LETECKA SPOLECNOST". U pozadini je vidljiv Caproni Ca 310.

50. An Avia Fokker F VII b 3 m after arriving in Croatia. There were still Czech civilian numbers on it. Part of the serial number that can be identified is ...AABO. On the fuselage, there was the inscription C. LETECKA SPOLECNOST. In the background, a Caproni Ca 310 can be seen.



51. Avia Fokker F 18, reg. br. 1951. Ispred koje je postrojena 1. padobranska lovačka satnija na Borongaju 1943. godine. Poklopci motora i dio trupa iznad kabine su srebrne boje, a ostali dio zrakoplova je manje sjajne srebrne boje ili svijetlo sive.

51. Avia Fokker F 18, serial number 1951, in front of which the 1st Parachute Fighter Troop had lined up at Borongaj in 1943. The engine cowling and part of the fuselage above the cockpit are silver, while the rest of the aircraft is a less-shiny silver colour, or light grey.



52. I 53. Bristol Blenheim Mk I tijekom korištenja u Hrvatskoj zadržao je shemu bojenja iz RAF-a. Registarski brojevi prikazanih primjeraka su 1504 i 1506. Žuta je traka oko stražnjeg dijela trupa.

60. and 61. The Bristol Blenheim Mk I kept its colouring scheme from the RAF while it was used in Croatia. The serial numbers of these machines are 1504 and 1506. There was a yellow band around the rear end of the fuselage.



54. Blenheim Mk I nepoznatog registarskog broja

54. A Blenheim Mk I with an unknown serial number.



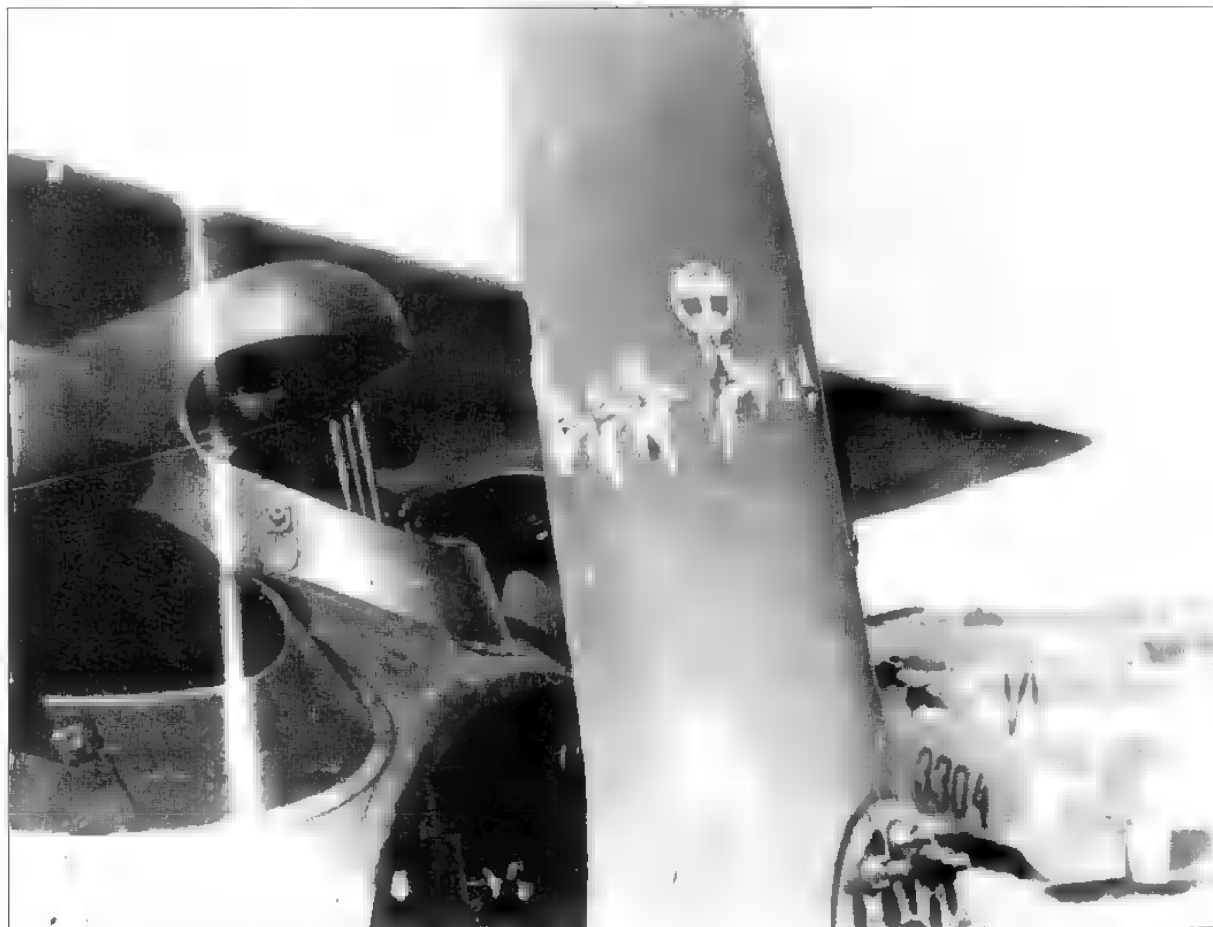
55. Inačica FL 3 sa zatvorenom pilotskom kabinom

55. An FL 3 version with an enclosed cockpit.



56. FL 3 s otvorenom kabinom ■ hangaru uzletišta Rajlovac

56. An FL 3 with an open cockpit, in the hangar at Rajlovac airfield.



57. Češki dvokrilni lovac Avia BH-33 L

57. Czech AVIA BH-33L biplane fighters.

1. SIJEČANJ 1942. – ORGANIZACIJA I SASTAV LETAČKIH POSTROJBI ZRAČNIH SNAGA**1ST JANUARY 1942 – ORGANISATION AND COMPOSITION OF THE AIR FORCE**

Zrakoplovna luka Air Base	Korišteni zrakoplovi Aircraft used		Zapovjednici jata Squadron Commanders
1. Zrakoplovna luka Zagreb 1 st Air Base Zagreb			
1. Skupina 1 st Group	1. Jato 1 st Squadron	FL 3	satnik / Captain Zvonko Kucelj
	2. Jato 2 nd Squadron	Bü 133	satnik / Captain Vid – Trpimir Akšan
	3. Jato 3 rd Squadron	Fi 156, F.P.2, P.V.T., SIM, Aero 2, RWD XIII, Breguet XIX, Potez XXV	satnik / Captain Vladimir Bosner
zapovjednik / Commander bojnik / Major Josip Gale			
2. Zrakoplovna luka Sarajevo 2 nd Air Base Sarajevo			
2. Skupina 2 nd Group	4. Jato 4 th Squadron	Bü 131, Fizir FN	satnik / Captain Oskar Vidale
	5. Jato 5 th Squadron	Potez XXV	satnik / Captain Danilo Hozetić
	6. Jato 6 th Squadron	Breguet XIX	satnik / Captain Krunoslav Kulušić
zapovjednik / Commander bojnik / Major Ivan Cenić	7. Jato 7 th Squadron	Caproni	satnik / Captain Ibrahim Džaferbegović
	8. Jato 8 th Squadron	Caproni, Blenheim Mk I, Amiot 143	satnik / Captain Ibrahim Sijerčić
	9. Jato 9 th Squadron	Savoia S. 79, Avia-Fokker, Dornier Do Y	satnik / Captain Ivan Pezelj
6. Skupina 6 th Group	16. Jato 16 th Squadron	Fiat G 50 bis	satnik / Captain Ikonjikov Arsenije
	17. Jato 17 th Squadron	MM-2, R-100, Avia BH-33 E, IK-2	satnik / Captain Nikola Cvikić
	18. Jato 18 th Squadron	Do 17	
zapovjednik / Commander bojnik / Major Romeo Adum			

NAPOMENE: 6. skupina nalazila se u Sarajevu privremeno jer se čekalo dovršenje zračne luke Banja Luka.

18. jato 6. skupine popunjeno je zrakoplovima nešto kasnije.

REMARKS: The 6th Group was situated in Sarajevo temporarily because the completion of Air Base Banja Luka was then pending.

The 18th Squadron of the 6th Group was reinforced with aircraft somewhat later.

Godina 1943.

Početkom 1943. godine globalne prilike na bojištu počele su se mijenjati u korist Saveznika. Njemačke snage poražene su u sjevernoj Africi, a Rusi su ozbiljno ugrožavali golemu Paulusovu vojsku pod Staljingradom. Partizanski pokret jačao je na cijeloj teritoriji nekadašnje Jugoslavije, a oslobođena su velika područja zapadno od rijeka Neretve i Bosne. Iznad hrvatskog ozemlja sve su se češće pojavljivali saveznički zrakoplovi. Za Bojnu je zrakoplovstvo NDH nepovoljna činjenica bila upravo to što su lovačka jata bila najslabije opremljena.

Jedini donekle moderniji lovci bili su Fiat G 50, ali i njih je bilo vrlo malo. Osim toga, na raspolaganju su bili samo potpuno zastarjeli modeli IK-2, R-100 i Avia BH-33 E. Njihove mogućnosti u zračnoj borbi bile su za tadašnje vrijeme zanemarive. Zahtjevi zapovjedništva zrakoplovstva za modernim lovcima upućivani Italiji i Njemačkoj nisu urodili plodom.

U siječnju su iz Njemačke stigla dva zrakoplova Fi-156 u sanitetskoj inačici. Jedan od njih (reg. br. 4151) upućen je u 2. zrakoplovnu luku, a drugi (reg. br. 4152) u Banju Luku.

Na dane 4., 5., 6. i 7. siječnja 1943. Do 17 Z-2 iz nekadašnjeg 15. (Kroat) Staffela/KG 53, koji su sada službeno nazvani 15. bombaška legionarska skupina, vrlo su intenzivno letjeli iznad područja oko Teslića, gdje su se odvijale jake borbe. Prvog dana šest zrakoplova je dva puta napalo koncentracije partizanskih postrojba u samom Tesliću, te putove i prugu južno i zapadno od mjesta. Pruga je presječena između Žepče i Teslića, a oštećena je bila još na nekim mjestima. Uništeno je i nekoliko zaprežnih kola. U 13.30 sati jedan Dornier bombardirao je selo Zvečevo, a strojničkom vatrom je napao kolonu od 30 do 40 zaprežnih kola oko sela Kamenski Vučjak. Sljedećeg je dana u dva napada letjelo deset zrakoplova. Pruga i komunikacije oko Teslića ponovno su bile cilj, kao i skladišta u samome mjestu i njegovoj blizini. Napadaji su izvršavani s visina 500 do 1 000 m, a izbačeno je 112 bombi SD-50. Dana 6. siječnja s visine 80 do 150 m bombardirana su naselja Dodoši, V. Graduša i M. Graduša, 15 km južno od Siska. Četiri zrakoplova su pronašla ciljeve i izbacila bombe, a preostala dva nisu obavila zadaću zbog loše vidljivosti.

Narednog je dana jedan zrakoplov Do 17 s 20 bombi SD-50 napao sela Rankoviće i Brežice, 6 km zapadno od Teslića. Drugi zrakoplov nije uspio izbaciti bombe zbog loša vremena, pa je s njima sletio na uzletište. U napadaje na područje oko

The Year 1943

At the beginning of 1943, the global situation on the battlefield began to change to the Allies' advantage. German forces were defeated in North Africa and the Russians posed a serious threat to Paulus' huge army at Stalingrad. The Partisan movement grew stronger on the entire territory of the former Yugoslavia, and large liberated areas appeared west of the rivers Neretva and Bosnia. Allied aircraft appeared more and more frequently above Croatian territory. An unfavourable situation for the Croatian Air Force was represented by the fact that fighter squadrons were the worst equipped.

The only slightly modern fighters were the Fiat G 50s, but there were very few of them. Besides these, they only had at their disposal, completely obsolete IK-2s, R-100s, and Avia BH-33 Es. Their performance in aerial combat was negligible in those times. Requests for modern fighters, issued by the Air Force Command, to Italy and Germany, were not successful.

In January, two Fi-156 aircraft arrived from Germany for medevac purposes. One of them (serial no. 5151) was sent to the 2nd Air Base, and the other (serial no. 4152) to Banja Luka.

On 4th, 5th, 6th, and 7th January 1943, the Do-17 Z-2s from the former 15th (Kroat) Staffel/KG 53, that were now officially called the 15th Legionary Bomber Group, flew intensively above the area around Teslić, where fierce battles were taking place. On the first day, six aircraft attacked concentrations of Partisan formations, twice in Teslić itself, and along roads and railways to the south and west of the town. The railways were cut between Žepče and Teslić, and were damaged at other points. Several horse-drawn carts were destroyed. At 1.30 p.m., one Dornier bombed the village of Zvečevo and attacked a line of around 30-40 horse-drawn carts with machine-gun fire, around the village of Kamenski Vučjak. The following day, ten aircraft flew in two attacks. The railways and communications around Teslić were the target once again, as well as the storehouses in the town itself, and in its vicinity. The attacks were carried out from a height of 500 to 1000 m, and 112 SD-50 bombs were dropped. On 6th January, the settlements of Dodoši, V. Graduša, and M. Graduša, 15 km south of Sisak, were bombed from a height of 80 to 150 m. Four of the aircraft found their targets, and released their bombs, while the remaining two did not accomplish their mission due to poor visibility.

Teslića upućivani su i zrakoplovi s drugih uzletišta. Pilot Bregueta XIX Ivan Henč autorima je osobno iznio svoja sjećanja iz toga vremena. Polijetao je Breguetom s uzletišta pokraj Slavanskog Broda, a ciljevi koje je napadao oko Teslića često su bili u podnožju visokih brda i klisura, tako da su izvlačenja nakon bombardiranja bila vrlo neugodna, osobito ako se u obzir uzme činjenica da su partizani s okolnih brda otvarali snažnu streljačku paljbu. Osamnaest je zrakoplova 9. i 10. siječnja bombama i strojnicama napadalo naselja Mečenčani, Kneževljani i Šnjegavići. Dva dana poslije, dva puta, od 11.35 do 12 sati i u 14.15 i 15.45 sati bombardirano je selo Mihajlovci, 24 km jugozapadno od Rume. Izbačeno je 295 bombi od 50 kg, tako da je mjesto gotovo potpuno razoreno. Osim bombardiranja, tada su se često izbacivali i leci. Iznad Požege, Slavanskog Broda i Nove Gradiške izbačeno je tako 31 000 letaka tijekom nekoliko letova. Od 18. do 21. siječnja zbog lošeg vremena nije se letjelo.

Njemačko zapovjedništvo je 20. siječnja 1943. pokrenulo vrlo opsežnu operaciju, nazvanu "Weis" (tzv. četvrta neprijateljska ofenziva). Prvi su put u borbe na ovom području ubačene i njemačke postrojbe. Modeli Ju 88 i He 111 polijetali su iz Zemuna, a Ju 87 iz Sarajeva. U akcije je uključena i skupina nekadašnjih legionarskih Dorniera iz Zagreba. Prvu zadaću izvršili su 22. siječnja po naredbi njemačkog majora Bucholza. Šest zrakoplova bombardiralo je sa 120 SD-50 bombi Cetin Grad. Napadaj je izvršen s visine 600 do 800 m. Šest bomba pogodilo je središte mjesta, a 40-ak je palo u neposrednoj blizini. Preostali dio pogadao je okolno šumsko područje. Sljedećeg dana sa sedam zrakoplova izvršeno je pet napadaja od 11.35 do 15.30 sati na području Petrove gore. Bombardirani su partizanski tabori i prometnice sa zaprežnim kolima i saonicama, koje su se koristile zbog velikih snježnih nanosa. Uništeno je više baraka u taborima te veći broj kola i saonica. U jednom napadaju bombe su pale u neposrednu blizinu vlastitih oklopnih vozila. Izbačeno je i 121 000 letaka. Dva zrakoplova 24. siječnja pokušavala su presjeći telefonske veze kod Bosanske Krupe i Vrnograče. Izbacila su deset bombi, a neke su pale u samu blizinu telefonskih stupova. Naredni se dan zbog lošeg vremena nije letjelo, a 26. siječnja dva je puta letjelo čak 13 Do 17, koji su izbacili 260 bombi i 50 000 letaka. U prvom napadaju bombardirano je selo Žirovac s visine od 300 do 400 m, a u drugom je sedam zrakoplova bombama i strojnicama napalo kolonu 200 do 250 zaprežnih kola. U toj operaciji, osim Dorniera korišteni su i drugi tipovi zrakoplova iz 2. i 5. zrakoplovne luke. U drugoj fazi operacije, letjelice Do 17 premještene su iz Zagreba na Butmir, te su s tog uzletišta borbeno djelovale. Iako nijedan zrakoplov Do 17 u tim napadajima nije srušen, neke druge letjelice su srušene ili oštećene, te su se zbog toga koristili i Potezi XXV u noćnim djelovanjima. Većina partizanskih snaga uspjela se nakon tromjesečnih borbi izvući iz okruženja.

On the following day, one Do 17 aircraft attacked the villages of Rankovići and Brežice, 6 km west of Teslić, with twenty SD-50 bombs. The other aircraft did not manage to drop their bombs, owing to bad weather, and returned to the airfield with them. Aircraft from other airfields were also sent to attack the area around Teslić. Ivan Henč, pilot of a Breguet XIX, recounted his memories of that time to the author. He would take off with the Breguet from the airfield near Slavonski Brod. The targets he used to aim for around Teslić were often located at the foot of high mountains and cliffs, so that escaping after the bombing was very unpleasant, especially considering that the Partisans from surrounding hills would open with concentrated machine-gun fire. On 9th and 10th January, eighteen aircraft attacked the settlements of Mečenčani, Kneževljani, and Šnjegavići, with bombs and machine-guns. Two days later, the village of Mihajlovci, 24 km southwest of Ruma, was bombed twice, from 11.35 am to 12.00 p.m., and from 14.15 p.m. to 15.45 p.m. A total of two hundred and ninety-five 50 kg bombs were dropped, so that the village was almost completely demolished. In addition to bombing, leaflets were often dropped at that time too. Around 31,000 leaflets were dropped in several episodes above Požega, Slavonski Brod, and Nova Gradiška. There was no flying from 18th to 21st January, due to poor weather.

On 20th January 1943, the German HQ launched a large-scale operation named "Weis" (the so-called "Fourth Enemy Offensive"). For the first time in this area, German formations were included in the fighting. Models Ju 88 and He 111 took off from Zemun, and Ju 87s from Sarajevo. A group of former Legionary Dorniers from Zagreb participated in the action. The first mission was carried out on 22nd January following an order by the German Major Bucholz. Six aircraft bombed Cetin-Grad with 120 SD-50 bombs. The attack was carried out from a height of 600 to 800 m. Six bombs hit the centre of the town, while about forty fell in its immediate vicinity. The rest fell in the surrounding woodland. On the following day, five attacks were performed with seven aircraft from 11.35 a.m. to 15.30 p.m., in the region of Petrova Gora. The Partisan camps were bombed, as well as roads and horse-drawn carts and sleighs, that were being used due to great snowdrifts. Many shacks in the camps, and carts and sleighs were destroyed. In one attack, the bombs fell in the direct vicinity of their own armoured vehicles. They also dropped 121,000 leaflets. On 24th January, two aircraft attempted to disconnect the phone lines at Bosanska Krupa and Vrnograče. They released ten bombs and some fell right next to the telephone posts. There was no flying on the following day, due to poor weather. On 26th January, as many as thirteen Do 17s flew twice, and dropped 260 bombs and 50,000 leaflets. In the first attack, the village of Žirovac was bombed

Od veljače 1943. službeni naziv zrakoplovstva NDH, koji je do tada glasio "Zračne snage", mijenja se u "Bojno zrakoplovstvo". Taj se naziv koristio sve do 24. kolovoza 1944., kada je promijenjen u "Vojno zrakoplovstvo".



58. Dornier Do 17 E, reg. br. 0301, oštećen prigodom slijetanja na jednom od uzletišta u okolici Zagreba
58. Dornier Do 17 E, serial no. 0301. Damaged while landing at one of the airfields around Zagreb.

Početkom veljače u Langelbarn (istočna Prusija) upućena je skupina od deset izvidnika, krugovalničara te mehaničara sa zadaćom da preuzmu prvih deset Dorniera Do 17 E. Nekoliko dana poslije, upućene su još dvije skupine za prelet 20 Do 17 E. Piloti su određeni iz sastava 1. i 5. zrakoplovne luke. Iz prvih pristiglih bombardera, šest ih se raspoređuje u 1. zrakoplovnu luku (reg. br. od 0301 do 0306), a četiri u 2. zrakoplovnu luku (reg. br. od 0307 do 0310). Dana 18. ožujka, sljedećih pet zrakoplova (reg. br. od 0311 do 0315) smješteno je u 5. zrakoplovnu luku. U Rajlovac 8. travnja dolaze četiri aparata (reg. br. 0316 do 0319), a Dornier s reg. br. 0320 prelijeće u Banju Luku. U narednom će razdoblju stići i posljednjih deset Dorniera.

U jednoj od naredaba Zapovjedništva Bojnog zrakoplovstva iz tog razdoblja nalazi se i podatak o slanju 12 pilota s krugovalničarima, izvidnicima i mehaničarima u Francusku radi preleta dvomotoraca Potez 63. Kako se taj tip više ne spominje ni u jednom sljedećem dokumentu, sigurno je da u Hrvatsku i nisu stigli.

U drugoj polovini veljače određeno je i 18 pilota sa četvoricom izvidnika za prelete 34 zrakoplova Bü 131 iz Italije. Ti će zrakoplovi u jedinice stići tek nekoliko mjeseci poslije.

U ožujku je 25 lakih zrakoplova Beta Minor Be-51 uključeno u postrojbe. Nijemci su ih preuzeli iz predratnog češkog zrakoplovstva. Hrvatski piloti su ih

from a height of 300 to 400 m, and in the second one, seven aircraft attacked a line of 200-250 horse-drawn carts with bombs and machine-guns. In this operation, in addition to the Dorniers, other types of aircraft from the 2nd and 5th Air Bases were used. In the second phase of the operation, the Do 17 aircraft were transferred from Zagreb to Butmir, and carried out missions from this airfield. Although none of the Do 17 aircraft were shot down in these attacks, some other aircraft were gunned down, or damaged, which is why Potez XXVs were used in night action. The majority of the Partisan forces managed to break out from the surrounding enemy, after three months of battle.

From February 1943, the official name of the Croatian Air Force, which until then had been *Zračne snage* (Air Force), was changed to *Bojno zrakoplovstvo* (Combat Air Force). This name was used until 24th August 1944, when it was changed to *Vojno zrakoplovstvo* (Military Air Force).

At the beginning of February, a group of ten observers, radio-operators, and mechanics, were sent to Langelbarn (Eastern Prussia), with the task of taking over the first ten Dornier Do17Es. Several days later, two more groups were sent to fly over twenty Do 17Es. The pilots were chosen from the 1st and 5th Air Bases. Six of the bombers that arrived first, were assigned to the 1st Air Base (serial nos. from 0301 to 0306), and four to the 2nd Air Base (serial nos. from 0307 to 0310). On 18th March, the following five aircraft (serial nos. from 0311 to 0315) were assigned a place at the 5th Air Base. On 8th April, four machines (serial nos. 0316 to 0319) arrived at Rajlovac, and a Dornier with the serial number 0320, flew over to Banja Luka. The final ten Dorniers were to arrive in the following period.

One of the orders issued by the HQ of the Combat Air Force in this period contains information on the despatch of twelve pilots with radio-operators, observers, and mechanics, to France, to fly over twin-engine Potez 63s. Since this type was never mentioned in any subsequent document, it is certain that they never arrived in Croatia.

In the second half of February, eighteen pilots and four observers were despatched to fly over thirty-four Bü 131 aircraft from Italy. These aircraft were to reach the units several months later.

In the month of March, twenty-five Beta Minor Be-51 light aircraft were included in the formations. The Germans had acquired them from the pre-war Czech Air Force. They were handed over to Croatian pilots at Wiener Neustadt. Ten of them were despatched to Rajlovac (serial nos. 6411-6420). At that time, two Fizir FP 2s



59. Beneš Mraz Be-51 Beta Minor ■ Borovu 1943. Uočava se crtež lastavice na poklopcu motora.

59. Beneš Mraz Be-51 Beta Minor, Borovo 1943. Notice the swallow emblem on the engine cowling.

preuzeli u Wiener Neudstatu. Deset ih je raspoređeno u Rajlovac (reg. br. 6411 – 6420). U Rajlovac su u to vrijeme za potrebe pilotske škole iz 1. zrakoplovne luke stigla i dva Fizira FP. 2, a u 5. zrakoplovnu luku dva Bregueta XIX s motorima Jupiter (reg. br. 4517 i 4524). Kako se uzletišće u Rajlovcu intenzivno koristilo u borbama s partizanima, iz Zemuna su nanj smještena tri Bregueta (reg. br. 4511, 4512, 4514), pet Fizira FN (reg. br. 7003, 7012, 7013, 7014 i 7015) i jedan Do 17 s motorom Gnome & Rhone K-14. Od travnja svi zrakoplovi Do 17 s tim tipom motora (verzija K) upućuju se u 1. zrakoplovnu luku, pa je i ovaj primjerak preletio u Zagreb. Iz iste serije popravljenih zrakoplova u Banju Luku su preletjela dva Bregueta, (reg. br. 4527 i 4528).

U drugoj polovini travnja primljene su i dvije posljednje isporuke zrakoplova FL 3 (prve isporuke izvršene su krajem ožujka). Četiri primjerka isporučena su u 1. zrakoplovnu luku, dva u 2., a tri u 5. zrakoplovnu luku. Bojno zrakoplovstvo se koristilo inačicama s otvorenom i zatvorenom pilotskom kabinom. Deset primjeraka sa zatvorenom kabinom nosilo je registarske brojeve od 8101 do 8110, a isto toliko s otvorenom kabinom brojeve od 8001 do 8010.

U to je vrijeme 12 pilota lovaca upućeno u St. Jean d. Angeli u Francusku na liječničke preglede, a 30 na izobrazbu u Njemačku (Fürth). Prva pilotska škola u Borovu u svibnju je dobila prvih deset modela Bü 131, koji su stigli iz Italije, a podrijetlom su bili iz Kraljevine Jugoslavije, te pet Fizira FN, koji su popravljeni u "Zmaju". U narednom razdoblju iz Italije su stigla još 24 zrakoplova Bü 131, koja su bila raspoređena u 1. i 5. zrakoplovnu luku i školu u Borovu. Iz Njemačke je još ranije stiglo 12 takvih letjelica.

arrived at Rajlovac from the 1st Air Base for the needs of the Pilot School, while two Breguet XIXs, with Jupiter engines (serial nos. 4517 and 4524), arrived at the 5th Air Base. Since the airfield at Rajlovac was dedicated to fighting the Partisans, the following aircraft from Zemun were kept there: three Breguets (serial nos. 4511, 4512, 4514), five Fizir FNs (serial nos. 7003, 7012, 7013, 7014 and 7015), and one Do 17, with ■ Gnome & Rhone K-14 engine. From April onwards, all Do 17 aircraft with this engine type (K version), were despatched to the 1st Air Base, and this aircraft flew over to Zagreb as well. Two Breguets, serial number: 4527 and 4528, belonging to the same series of modified aircraft, flew over to Banja Luka.

In the second half of April, the two final batches of FL 3 aircraft were received (the first deliveries were carried out at the end of March). Four machines were delivered to the 1st Air Base, two to the 2nd, and three to the 5th Air Base. The Combat Air Force used versions with both an open cockpit, and an enclosed one. Ten aircraft with enclosed cockpits bore the serial numbers 8101 to 8110, and an equal number with open cockpits had the numbers 8001 to 8010.

At that time, twelve fighter pilots were sent to St. Jean d'Angeli, in France, for medical examinations, and thirty of them were to be trained in Germany (Fürth). In May, the 1st Pilot School in Borovo got its first ten Bü 131 models, that had arrived from Italy, and originated from the Kingdom of Yugoslavia, and five Fizir FNs, that had been repaired at "Zmaj". In the following period, another twenty-four Bü 131 aircraft arrived from Italy, and were despatched to the 1st and 5th Air Bases and to the school in Borovo. Twelve more of these aircraft had arrived previously from Germany.

At the Military Glider School for high-altitude gliding at Sveta Nedjelja airfield, near Zagreb, intensified glider activity was taking place. On 24th May, at Šikava airfield, which was also used by the school, pilot M. Lipovšćak performed a test flight with the finest glider used in Croatia. This was the PWS 101 model, that had been designed in Poland, but was actually manufactured in Croatia. Only one machine was made. The flight lasted for 28 minutes, and a height of 1,000 meters was achieved. A Fizir FN lifted it into the air, and on the same day, the second flight was carried out, lasting 15 minutes and achieving a height of 500 meters. In the second flight, the landing was performed at the principle airfield in Sveta Nedjelja. These were the only flights of this glider, because during an unexpected night attack of 29th May, the Partisan XIII Proletarian Brigade practically destroyed the whole school and all the aircraft. The attack was a big surprise for the Air Force Command, because a strong Ustashi garrison was situated in the immediate vicinity of the

U Vojnoj jedriličarskoj školi za visoko jedrenje na uzletištu Sveta Nedelja pokraj Zagreba odvijala se pojačana jedriličarska djelatnost. Na uzletištu Šikava, koje je škola također koristila, pilot M. Lipovšćak izvršio je 24. svibnja probni let najkvalitetnije jedrilice korištene u NDH. Bio je to model poljske konstrukcije PWS 101 izrađen u samoj Hrvatskoj. Napravljen je samo jedan primjerak. Let je trajao 28 minuta, a postignuta je visina od 1 000 metara. U zrak je podignuta fizirom FN, a istog dana izvršen je i drugi let od 15 minuta, kada je postignuta visina od 500 metara. U drugom letu slijetanje je izvršeno na matično uzletište u Svetoj Nedelji. To su bili jedini letovi te jedrilice, jer je 29. svibnja u iznenadnom noćnom napadaju partizanska XIII. proleterska brigada uništila čitavu školu i sav zrakoplovni materijal. Napadaj je bio veliko iznenađenje za Zapovjedništvo zrakoplovstva, jer se u neposrednoj blizini škole u dvorcu Kerestinec nalazio jaki ustaški garnizon. U školi su partizani imali simpatizere koji su im dostavili podatke na kojima se temeljio napadaj. Spaljena su dva Fizira FN, 17 visokosposobnih jedrilica (Mk 2, Komar, Grunau-baby, PWS 101), 15 prijelaznih jedrilica Salamander i 22 školska klizača Zögling 35. Zapaljeni su hangari, radionica, gorivo i druga oprema. Zarobljeno je mnogo časnika, dočasnika i domobrana, a među njima i nastavnici letenja. U dotadašnjem tijeku rata, to je bio najveći gubitak zrakoplovstva nakon kojega je škola praktično prestala postojati.

Lako zrakoplovstvo je u lipnju ojačano pristizanjem 25 primjeraka dvokrilnih dvosjeda Saiman 200 koji su raspoređeni u 1. pilotsku školu (deset primjeraka), te u 1, 2. i 5. zrakoplovnu luku po pet primjeraka. Iz Thornaja je u to vrijeme preletio jedan primjeak D.H. 80 Push Motha od dvaju korištenih.

Pregovori s njemačkom stranom u vezi s nabavom modernijih lovaca napokon su urodili plodom, pa se u lipnju određuje 36 pilota koji će iz Wiener Neustada preletjeti 36 primjeraka Morana 406 C u 5. zrakoplovnu luku.

Drugi teški udarac Bojno zrakoplovstvo je doživjelo u noći 11. i 12. kolovoza 1943., kada je Prva krajiška udarna brigada u iznenadnom napadaju na uzletište Rajlovac izbacila iz stroja 34 njemačka i hrvatska zrakoplova. Trinaest bombardera i četiri druge letjelice potpuno su uništeni, a među njima i neki od malobrojnih Blenheima.

Kapitulacijom Italije 8. rujna 1943., dolazi se u posjed određenog broja letjelica "Regie Aeronautica". Točan broj nije poznat, ali postoje naznake da je na zadarskom uzletištu zatečeno i nekoliko Fiata G. 50. Dugoročno gledano, to je za NDH ipak bila otežavajuća okolnost jer je izgubila važan izvor nabavke novih zrakoplova. Od druge polovine 1943. godine osjeća se stalno pomanjkanje raspoloživih letjeli-

school, in Kerestinec Castle. The Partisans had sympathisers within the school, who gave them information, on the basis of which the attack was carried out. Two Fizir FNs were burned, as well as seventeen highly capable gliders (Mk 2, Komar, Grunau-Baby, PVS 101), fifteen Salamander intermediate-level training gliders, and twenty-two Zögling 35 gliders, for primary training. The hangars, workshops, fuel, and other equipment, were burned. Many officers, non-commissioned officers, and members of the Home Guard, were captured, and flying instructors among these. This was the greatest loss of the Air Force to that date, after which the school practically ceased to exist.

In June, the light aviation was reinforced by the arrival of twenty-five two-seater Saiman 200 biplanes, which were despatched to the 1st Pilot School (ten machines) while the 1st, 2nd, and 5th Air Bases received five machines each. At that time, one of the two D.H. 80 Push Moths that were used, flew over from Thorn.

Negotiations with the Germans regarding the acquisition of more modern fighters were finally fruitful, and in June, thirty-six pilots were chosen to fly thirty-six Moran 406 Cs from Wiener Neustadt, to the 5th Air Base.

The Combat Air Force experienced its second strong blow on the night between 11th and 12th August 1943, when the First Krajiška Combat Brigade mounted a surprise night attack at Rajlovac airfield, thereby putting thirty-four German and Croatian aircraft out of action. Thirteen bombers and four other aircraft were completely destroyed, some of the few Blenheims being among them.

With the capitulation of Italy on 8th September 1943, a certain number of "Regie Aeronautica" aircraft came into Croatian hands. The exact number is not known, but there are indications that several Fiat G. 50s were captured at Zadar airfield. In the long-term, this was a disadvantage for Croatia, as it had lost an important source of new aircraft. From the second half of 1943, a constant lack of available aircraft was felt and the Allied flights over Croatian airspace became an increasingly frequent reality. German fighter squadrons stationed at airfields in Austria, Slovenia, and Italy were not able to prevent such flights.

As winter approached and the pilot training for the current year came to an end, the Breguet XIXs from Borovo (serial nos. 4505, 4512, 4513, 4525 and 4530), were transferred to the 2nd Air Base.

On 14th November, there was a rotation of the head of the Combat Air Force Command, because General V. Kren retired. In his place, Adalbert Rogulja was appointed commander, on 18th November.

ca, a saveznički letovi hrvatskim nebom postajali su sve češća realnost. Njemačke lovačke eskadrole, razmještene na uzletištima u Austriji, Sloveniji i Italiji, nisu uspjevale spriječiti takve letove.

Približavanjem zime i završetkom pilotske izobrazbe za ljetnu godinu, Bregueti XIX iz Borova (reg. br. 4505, 4512, 4513, 4525 i 4530) premještaju se u 2. zrakoplovnu luku.

Dana 14. studenog dolazi do smjene na čelu Zapovjedništva Bojnog zrakoplovstva, jer je general V. Kren umirovljen. Umjesto njega, 18. studenog imenovan je zapovjednikom Adalbert Rogulja.

Zbog nedovoljnog broja raspoloživih letjelica i stručnog osoblja, 18. listopada izvršeno je novo preustrojstvo jata po zrakoplovnim lukama, nakon čega je broj jata smanjen. U 1. zrakoplovnoj luci raspušteno je 2. jato, iz kojeg su letjelice raspoređene u 19. jato i u 2. zrakoplovnu luku, gdje se ukida 6. jato. Caproniji Ca 310 i 311, te Fiat Br 20 iz te luke raspoređuju se u 6. skupinu, odnosno u njezino 13. jato. Blenheim Mk I poslan je u 19. jato 1. zrakoplovne luke za potrebe zapovjednika zrakoplovstva. U 3. zrakoplovnoj luci ukinuto je 9. jato, a 5. zrakoplovna luka ostala je bez 16. i 17. jata. Raspored preostalih jata po skupinama i lukama prikazan je u tablici 3. Preleti iz jata u jato u skladu s novom organizacijom izvršavani su u narednom razdoblju u zavisnosti od vremenskih prilika i mogućnosti radionica da osposobe pojedine zrakoplove za prelet. Završetak svih premještaja planiran je za 1. studenoga, ali se pojedinačni preleti obavljaju i nakon toga datuma.

Zbog loših vremenskih prilika, u listopadu je više zrakoplova oštećeno u raznim udesima, a među ostalima i jedan Do 17. U 1. zrakoplovnu luku je 5. prosinca stigao iz Zemuna popravljeni Blenheim (reg. br. 1505).

Nova, 11. skupina s 21., 22. i poslije 23. jatom osnovana je u studenome. Smještena je u 1. zrakoplovnu luku, a predviđeno je opremanje s očekivanim Moranima 406 C i Fiatima G. 50. Zapovjednik skupine postao je zrakoplovni nadsatnik Ernest Turko. Smješteno u Zagrebu, 21. jato je uz zapovjednika natporučnika Ivana Jergovića imalo osam pilota. Zapovjednik 22. jata koje se nalazilo na uzletištu Butmir pokraj Sarajeva postao je satnik Vjekoslav Rušec, koji je raspolagao s devet pilota. U sastavu tog jata bio je i Cvitan Galić, jedan od najpoznatijih hrvatskih pilota asova s istočne bojišnice. Baza 23. jata nalazila se u Banjoj Luci. Za potrebe preobuke na Morane 406 i Fiat G. 50, u tu su skupinu stigli po jedan Saiman 200 i P.V.T-e.

Nakon prebjega Kluz i Čajavca u svibnju 1942., još je jedan pilot, ovaj put visoki časnik, pukovnik Franjo Pirc prebjegao partizanima na zrakoplovu FL 3, reg. br.

Owing to an insufficient number of available aircraft, officers, and non-commissioned officers, a new re-organisation of the squadrons according to air bases was carried out, after which, the number of squadrons decreased. At the 1st Air Base, the 2nd Squadron was disbanded and its aircraft were assigned to the 19th Squadron, while at the 2nd Air Base, the 6th Squadron was disbanded. The Caproni Ca 310s and 311s, and the Fiat Br 20s from this air base were depatched to the 6th Group, i.e. to its 13th Squadron. A Blenheim Mk I was sent to the 19th Squadron of the 1st Air Base for the needs of the Air Force Commander. At the 3rd Air Base, the 9th Squadron was disbanded, and the 5th Air Base was left without the 16th and 17th Squadrons. The disposition of the remaining squadrons, according to groups and air bases, is provided in Table 3. In the following period, transfers between squadrons, in accordance with the new organisation, were performed depending on the weather and the ability of the workshops to repair individual aircraft for flight. The end of all transfers was planned for 1st November, but individual flights continued after that date.

Due to poor weather in October, several aircraft were damaged in various accidents, among them, one Do 17. On 5th December, a repaired Blenheim, serial no. 1505, arrived at the 1st Air Base, from Zemun.

The new 11th Group with the 21st, 22nd, and later, the 23rd Squadrons, was formed in November. It was situated at the 1st Air Base and it was anticipated that it would be equipped with Moran 406 Cs and Fiat G. 50s. Senior Flight Captain Ernest Turko became the Group Commander. Located in Zagreb, the 21st Squadron had eight pilots, including the Commander, Lieutenant Ivan Jergović. Captain Vjekoslav Rušec became the Commander of the 22nd Squadron, and had nine pilots at his disposal, and was located at Butmir airfield, near Sarajevo. One of the members of this squadron was Cvitan Galić, one of the most famous Croatian fighter aces of the Eastern Front. The base of the 23rd Squadron was at Banja Luka. In order to re-train for Moran 406s and Fiat G. 50s, one Saiman 200, and a P.V.T., arrived at this group.

After Kluz and Čajavec had defected in May 1942, another pilot, this time a high-ranking officer, Colonel Franjo Pirc, defected to the Partisans in a FL 3 aircraft, serial number 8102. He landed at the airfield near Bugojno. The Croatian markings were repainted immediately, with wide white strips on which red stars were drawn. On 20th November, during a flight to another Partisan airfield near Livno, the poorly improvised markings partially peeled away and the Croatian coat-of-arms appeared once again. It was for this reason, that a Partisan formation opened fire at

8102. Sletio je na uzletišće pokraj Bugojna. Oznake NDH zrakoplovstva odmah su prebojene širokim bijelim trakama, na koje su ucrtane crvene zvijezde. Prilikom preleta na drugo partizansko uzletišće pokraj Livna, 20. studenoga, loše nanosene improvizirane oznake su se djelomično oljuštile, te su se ponovno pojavili hrvatski grbovi. Zbog toga je jedna partizanska postrojba otvorila vatru na FL 3 i oštetila ga. Nakon popravka, na pomoćnim zadacima letio je 15-ak puta. Pri pokušaju preleta za Glamoč 5. prosinca zbog nedostatka goriva prinudno se spustio. Nakon dva dana zapalili su ga sami partizani zbog približavanja njemačko-hrvatskih snaga.



60. A.V.I.A. FL 3. Laki zrakoplovi korišteni su uglavnom za zadaće veze. Registarski brojevi na trupu nisu još napisani.

60. A.V.I.A. FL 3. Light aircraft mostly used for liaison missions. The serial numbers on the fuselage had not been drawn yet.

U Bojnom zrakoplovstvu taj tip letjelice, zbog male brzine i nosivosti, koristio se samo za zadatke veze. Mnogo ih je oštećeno pri polijetanju ili slijetanju, a osim prebjega Pirca, još je nekoliko pilota iskoristilo taj tip zrakoplova za bijeg u partizane. Pojedini tipovi FL 3 su preživjeli rat i kraće su se vrijeme rabili i u novoj Jugoslaviji (reg. br. 8010, 8015, 8018, 8110). Krajem 1943. godine hrvatski su piloti iz Italije preletjeli u Zagreb tri primjerka bombardera CANT Z 1007. Jednog od njih preletio je pilot Đuro Švarc. Poslije su vjerojatno završili u Hrvatskoj legiji. Krajem 1943. godine Bojno zrakoplovstvo raspolagalo je ukupno s otprilike 230 zrakoplova, od kojih je modernih bilo vrlo malo. U to vrijeme stigli su Morani 406 C.

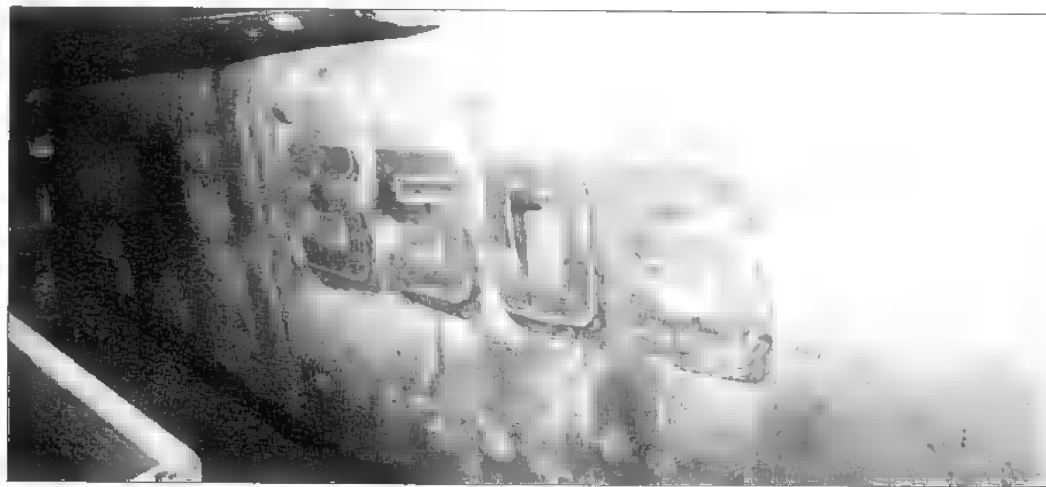
the FL 3 and damaged it. After it had been repaired, it flew about fifteen auxiliary missions. When attempting to fly to Glamoč on 5th December, it was forced to land, owing to a shortage of fuel. Two days later, the Partisans themselves burned it, because German-Croatian forces were approaching.

Due to slow speed and small carrying capacity, this type of aircraft was only used for liaison duties in the Combat Air Force. Many were damaged during take-off and landing, and in addition to the defection of Pirc, several more pilots used this type of aircraft to escape to the Partisans. Certain types of FL 3 survived the war and were used for a short while in the new Yugoslavia (serial numbers 8010, 8015, 8018, 8110). Towards the end of 1943, Croatian pilots flew three CANT Z 1007 bombers from Italy to Zagreb. One of them was flown by pilot Đuro Švarc. Later, they ended up in the Croatian Legion. Towards the end of 1943, the Combat Air Force had at its disposal a total of about 230 aircraft, of which very few were modern. It was at that time that the Moran 406 C was received.



61. Fiat G. 50 bis u Hrvatskoj je korišten sa standardnom talijanskom shemom bojenja (gornje površine Verde Oliva Scuro, donje površine Grigio Azzuro Chiaro).

61. The Fiat G.50 bis had its standard Italian colouring scheme while it was used in Croatia. (Upper surfaces-Verde Oliva Scuro, lower surfaces-Grigio Azzuro Chiaro).



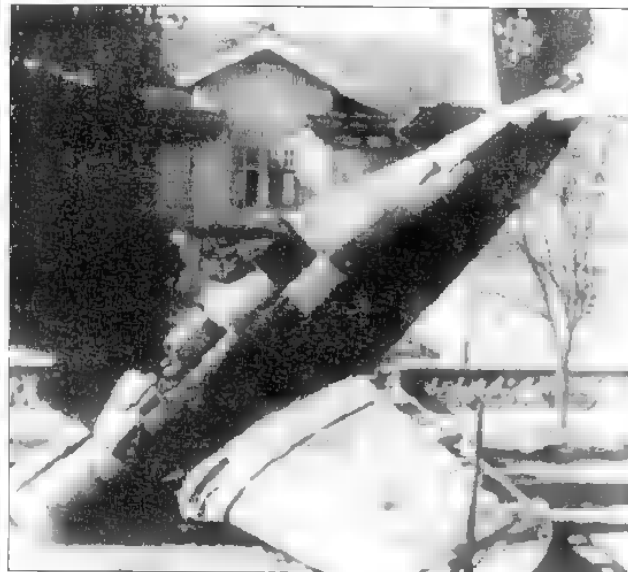
62, 63. I 64. Oslaci G. 50 bis, reg. br. 3505, koji se danas nalazi u muzeju na Surčinu blizu Beograda

62, 63 and 64. The remains of a G.50 bis, serial number 3505, that can be found today in the museum at Surčin, near Belgrade.



65. Isti zrakoplov prije prenošenja u muzej

65. The same aircraft before it was transported to the museum.



66. Jedini korišteni primjerak dvosjedne inačice G. 50 B, na nosu je imao nacrtan bijeli crtež dvorca. U pozadini se nazire Rogožarski R-100 s podtrupnim nosačem za bombu od 100 kg.

66. The only two-seater version of the G.50 B used; it had a castle emblem on the nose. In the background, one can make out a Rogožarski R-100 with a sub-fuselage bomb carrier for a 100 kg bomb.



67. i 68. RWD XIII snimljen ■ Borovu 1943. godine (na nosu se može vidjeti crtež, vjerojatno crne boje, koji predstavlja dvorac) s jednobojnom shemom bojenja, te RWD XIII u Rajlovcu. Gornje površine su tamne boje, a na svijetlom dijelu nosa se nazire crtež dvorca identičan kao na primjerku iz Borova. Na fotografiji broj 39 možemo vidjeti RWD XIII sveobuhvatno bojenog tamnom bojom. Iako arhivski dokumenti spominju samo jedan primjerak korišten u NDH, pretpostavlja se da je on više puta bojan ili je ipak korišteno više primjeraka.

67. and 68. An RWD XIII, photographed at Borovo in 1943 (on the nose there was a castle emblem, probably in black), with a one-colour colouring scheme, and an RWD XIII at Rajlovac. The upper surfaces were dark, and on the lighter part of the nose, the original photograph shows the castle emblem that was identical to the machine from Borovo. On photograph number 39, one can see the RWD XIII coloured overall in a dark colour. Since documentation found in the Archives mentions only one machine that was used in Croatia, it is supposed that it was painted several times, or that several machines were used.



69. Na Bü 133, krajem rata, preko osnovne svijetlosive boje, nanese su tamne crte nepravilnih oblika

69. On the Bü, towards the end of the war, dark lines with irregular shapes were painted over the basic light grey camouflage.



70. Bucker Bü 133 Jungmeister, reg. br. 7706, snimljen iznad hangara 1. pilotske škole u Borovu

70. Bucker Bü 133 Jungmeister, serial number 7706, photographed above the hangar of the 1st Pilot School in Borovo.



71, 72, 173. Dornier Do 17 Ka-2 podrijetlom iz Kraljevine Jugoslavije. Gornje površine zrakoplova su jednobojne. Na trupu se primjećuje reg. br. 0108. Broj ima bijeli obrub, što također nije uobičajeno. Žuti detalji su na standardnim položajima (traka oko trupa i donje površine vrhova krila). Maskirna boja je izrazito oštećena na mnogim mjestima.

71, 72 and 73. A Dornier Do 17 Ka-2 originating from the Kingdom of Yugoslavia. The upper surfaces of the aircraft were plain. On the fuselage, one can see the serial number 0108. The number had a white border that was also unusual. The yellow details were in the standard positions (a band around the fuselage and the lower wing tip surfaces). The camouflage colour was severely damaged in some places.



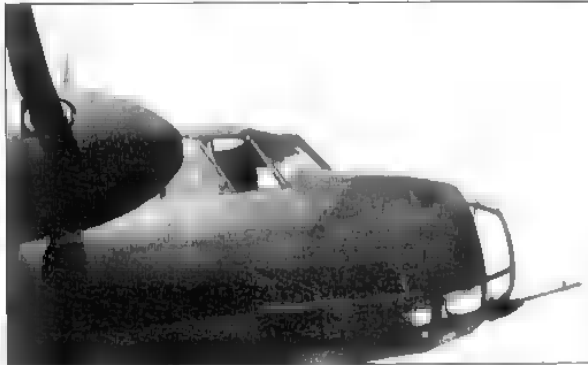
74. Dewoitine D 520 na pisti 1. pilotske škole u Borovu 1943. Zrakoplov nosi oznake Luftwaffe, a u Borovo su slijetali prilikom preleta iz Francuske u Bugarsku (reg. oznaka NE+HG).

74. A Dewoitine D. 520, on the runway of the 1st Pilot School in Borovo in 1943. The aircraft carried Luftwaffe markings and they would stop over at Borovo when flying from France, enroute to Bulgaria. (serial number NE+HG)



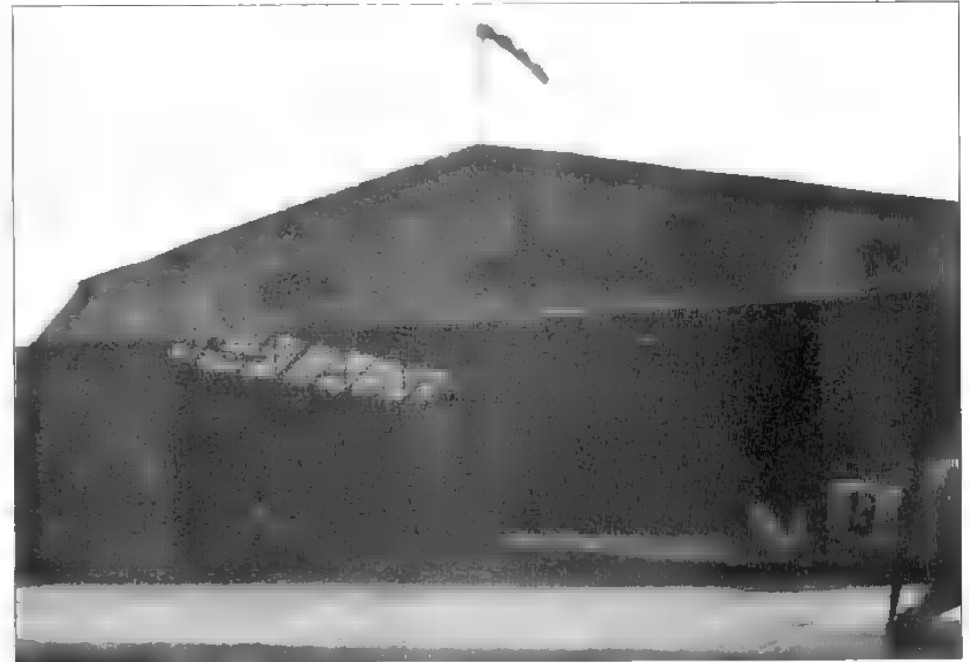
75. Na ulazu u hangar 1. pilotske škole uočava se zrakoplov Beneš Mraz Be-51 Beta Minor s dvobojnom maskirnom shemom gornjih površina. Ovo je dosad jedina poznata fotografija s ovom shemom. Na svima do sada objavljenim i viđenim fotografijama ovaj zrakoplov je jednobojan.

75. At the entrance to the hangar of the 1st Pilot School, there is a Beneš Mraz Be-51 Beta Minor aircraft, with a two-colour camouflage pattern on its upper surfaces. So far, this is the only known photograph with this scheme. On all previously published photographs, and others seen by the author, this aircraft was plain.



76. I 77. Do 17 E u Borovu 1943. Može se primijetiti da su gornje površine zrakoplova dvobojne

76. and 77. A Do 17 E at Borovo in 1943. It is discernible that the upper surfaces of the aircraft were two-coloured.



78. I 79. Obratiti pozornost na crno-bijelu spiralu na splneru elise Do 17 E, uništenog pri slijetanju

78. and 79. Note the black and white spiral on the propeller spinner of this Do 17 E, that was destroyed while landing.





80. i 81. Caproni Ca 311 M nepoznatih registraskih brojeva
80. and 81. Caproni Ca 311 Ms of unknown serial numbers.



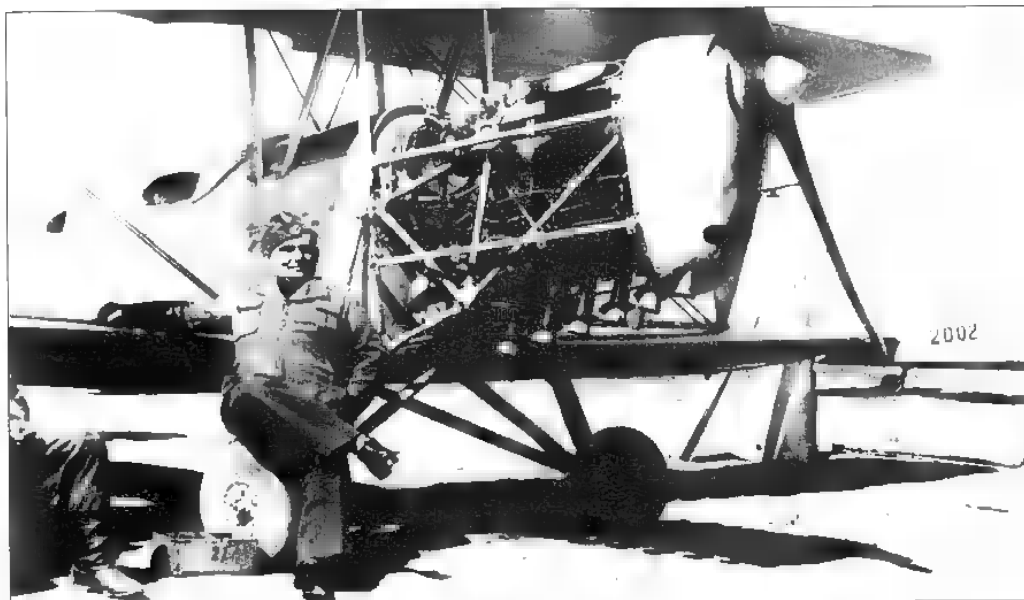
82. Vojskovođa Slavko Kvaternik ispred jednog od Capronia
82. Marshal Slavko Kvaternik in front of one of the Capronis.



83. i 84. Jedan od dvaju korištenih primjeraka
Airspeed Envoy u zrakoplovstvu NDH, te državni
grb s obrubom na A. Envoy, reg. br. 2001

83. and 84. One of the two aircraft of the
Airspeed Envoy that were used in the Croatian
Air Force, and the state coat-of-arms with a red
border on an Airspeed Envoy with the serial
number 2001.





85. Saiman 200 iza kojeg se vidi trup A. Envoy reg. br. 2002

85. A Saiman 200, behind which, one can observe the fuselage of an Airspeed Envoy, with the serial number 2002.



86. Autovrtlo koristi se za podizanje jedrilica u zrak

86. An auto-windlass, used to lift gliders into the air.



87. Njemačka jedrilica Zögling 35 korištena je također za obuku. U Hrvatskoj je zvana "Roda", što se vidi i iz natpisa na nosaču zatega. Na fotografiji se ne može primijetiti državni grb na krilima i stabilizatoru. Natpis "Z 35" označava tip jedrilice, a oznaka "I-14" određuje jedrilicu. Boja svih natpisa je crna, a sama jedrilica nije posebno bojena (prirodne je boje drva i lanenog platna).

87. The German Zögling 35 glider was also used for basic training. In Croatia, it was called Roda (Stork) which can be seen on the inscription on the load carrier. In the photograph shown, it is not possible to discern the state coat-of-arms on the wings and rudder. The inscription "Z35" denotes the glider type, and the sign "I-14", the actual glider. The colour of all inscriptions was black, while the glider itself was not painted (natural wood and flaxen canvas colours).



88. Jedrilica poljske konstrukcije, poluzatvorenog tipa, Salamander. Državni grb s crvenim obrubom na gornjim i donjim površinama krila.

88. A semi-enclosed type of glider, of Polish construction, the Salamander. The state coat-of-arms was on the upper and lower wing surfaces and had a red border.



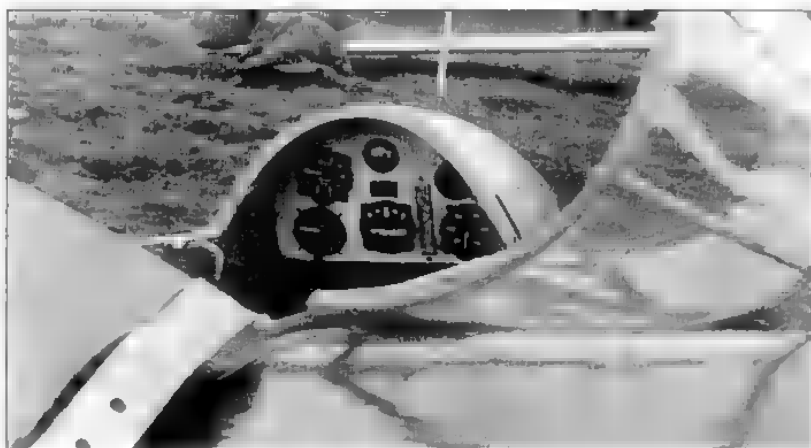
89. Visokosposobna jedrilica Grunau Baby. Jedriličari su cijenili njezine visoke akrobatske sposobnosti.

89. The highly capable Grunau Baby glider. The glider pilots respected its high aerobatic abilities.



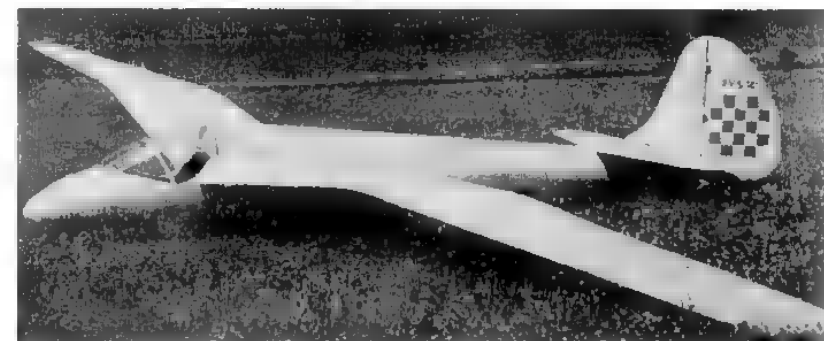
90. Jedrilica za napredno školovanje Komar bis, u prvom planu. Na vertikalnom stabilizatoru nalaze se državni grb i bijeli natpis "K bis". Na donjem dijelu stabilizatora također je natpis, za sada neidentificiranog sadržaja. Dio trupa oko horizontalnog stabilizatora je svjetlije boje od ostalog dijela jedrilice. Uočava se bijela površina vrha nosa, te nepostojanje državnoga grba na donjoj površini krila. U pozadini se primjećuje još jedan Komar bis, Salamander, dva primjerka Zögling-a 35 i Vrabac.

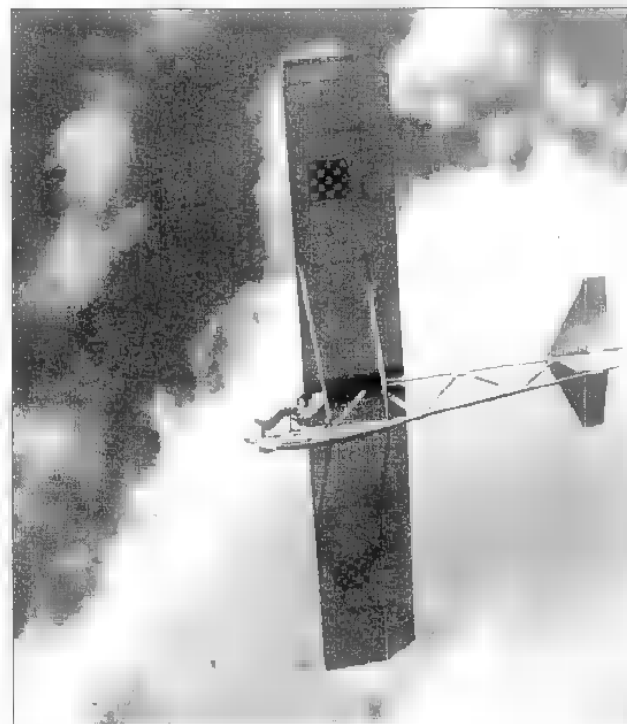
90. A Komar bis glider, for advanced training, in the foreground. On the rudder, there was a state coat-of-arms and the white inscription "K bis". On the lower part of the rudder there was also an inscription of, as yet, unknown content. The part of the fuselage around the horizontal stabiliser was a lighter colour than the rest of the glider. Notice the white surface of the nose-tip, and the non-existence of the state coat-of-arms on the lower surface of the wings. In the background, there is another Komar bis, a Salamander, two Zögling-a 35 and a Vrabac.



91. i 92. Jedrilica PWS 101 izrađena po poljskim nacrtima u 1. lučkoj radionici (Zagreb) u samo jednom primjerku. Na vertikalnom stabilizatoru državni grb ima crveni obrub i natpis "PVS 101".

91. and 92. A PWS 101 glider constructed according to a Polish design, at the 1st Air Base workshop (Zagreb). Only one machine was built. On the rudder, the state coat-of-arms had a red border and the inscription "PVS-101".





93. i 94. Jedrilice za početno školovanje Vrabac konstruktora Ing. Šošarića snimljene u jedriličarskim školama na Butmiru i Svetoj Nedelji. Primjećuje se državni grb postavljeni na donjim površinama krila i vertikalnom stabilizatoru. Iznad grba je oznaka "V" koja označava jedrilicu Vrabac i dvoznamenkasti broj, koji je dobila svaka jedrilica. Jedrilica je zadržala boje samih materijala od kojih je izrađena (drvo i platno).

93. and 94. Vrabac (Sparrow) Gliders for basic training, constructed by engineer Šošarić, photographed at the glider schools of Butmir and Sveta Nedjelja. Observe the state coat-of-arms placed on the lower wing surfaces, and on the rudder that has a "V" sign above the coat-of-arms (denoting a Vrabac glider) and a two-digit number that each glider received. The glider retained the colours of the material from which it was built (wood and canvas).

95. Jedrilica MK 2 konstruktora Stanka Obada. Državni grb na krilima i vertikalnom stabilizatoru ima crveni obrub. Popularno je zvana "Musa Kesedžija".

95. An MK 2 glider constructed by Stanko Obad. The state coat-of-arms on the wings and rudder had a red border. It was popularly called "Musa Kesedžija".



18. LISTOPADA 1943. – ORGANIZACIJA I SASTAV LETAČKIH POSTROJBI BOJNOG ZRAKOPLOVSTVA

18TH OCTOBER 1943 – ORGANISATION AND COMPOSITION OF THE COMBAT AIR FORCE

Skupina Group	Jato Squadron	Korišteni zrakoplovi Aircraft used
1. Zrakoplovna luka Zagreb <i>1st Air Base Zagreb</i>		
1. Skupina <i>1st Group</i>	1. Jato – lovačko <i>1st Squadron – fighters</i>	Fiat G.50 bis
	3. Jato – za vezu <i>3rd Squadron – liaisons duties</i>	Bü 131, Bü 133, FL 3, Envoy, Saiman 200 & 202, RWD XIII, Avia-Fokker
	19. Jato – bombardersko <i>19th Squadron – bombers</i>	Do 17
2. Zrakoplovna luka Sarajevo <i>2nd Air Base Sarajevo</i>		
2. Skupina <i>2nd Group</i>	4. Jato – izvidničko <i>4th Squadron – reconnaissance</i>	Potez XXV, Breguet XIX
	5. Jato – izvidničko <i>5th Squadron – reconnaissance</i>	F.P. 2, P.V.T., R-100, IK-2, Avia BH-33 E
	20. Jato – za vezu <i>20th Squadron – liaison duties</i>	Bü 131, Fizir FN, Be-51, Saiman 200, Avia-Fokker i slični (<i>and the like</i>)
3. Zrakoplovna luka Mostar <i>3rd Air Base Mostar</i>		
3. Skupina <i>3rd Group</i>	7. Jato – bombardersko <i>7th Squadron- bombers</i>	Do 17
	8. Jato – za vezu <i>8th Squadron – liaison duties</i>	Saiman 200, F.P. 2
5. Zrakoplovna luka Banja Luka <i>5th Air Base Banja Luka</i>		
6. Skupina <i>6th Group</i>	13. Jato – bombardersko <i>13th Squadron – bombers</i>	Br-20, Ca 310, Ca 311
	18. Jato – za vezu <i>18th Squadron – liaison duties</i>	Bü 131, Bü 133, Saiman 200, Fiziri, Be-51, FL 3

Godina 1944.



96. Morane-Saulnier MS-406 C.1., reg. br. 2305. Državni grb ima crveni obrub.

96. Morane-Saulnier MS-406 C.1, serial no. 2305. The state coat-of-arms had a red border.

Od siječnja 1944. počeli su pristizati preostali lovci Moran 406 C, koji su predstavljali značajno pojačanje lovačkih jata. Do kraja rata ukupno ih je stiglo 36 – 38. Postoji mogućnost da je stiglo i nekoliko primjeraka inačice Moran 410, ali to za sada nije dokazano fotografijama. Tečajevi za doškolovanje za taj tip letjelica, kao i za Fiat G. 50, održavali su se na uzletištu Lučko u 1. zrakoplovnoj skupini još od listopada 1943. Voditelj tečaja bio je nadsatnik E. Turko. Skupina pilota i tehničkog osoblja u veljači 1944. upućena je na izobrazbu u Langendiebach u Njemačku. Svrha izobrazbe bilo je osposobljavanje za vuču transportnih jedrilica Gota i DFS. Školovali su se piloti zrakoplova za vuču, kao i sami piloti jedrilica. Autor je razgovarao s jednim od pilota te skupine Š. Miletićem, koji je izjavio da nakon povratka u Hrvatsku više nisu imali prilike letjeti na tim tipovima jedrilica. Nijemci su ih koristili prilikom zračnog desanta na Drvar.

Za potrebe 1. pilotske škole od veljače se svi tipovi Bü 131 i 133 upućuju u Borovo. Samo su se dva primjerka zadržala u Zagrebu za potrebe zapovjednika zrakoplovstva i obuku pilota 11. skupine. Po dolasku tih zrakoplova u Hrvatsku,

The Year 1944

From January 1944, the first groups of Moran 406 C fighters began to arrive, bringing a significant reinforcement to the fighter squadrons. By the end of the war, some thirty-six to thirty-eight of them had arrived in all. There is a possibility that certain machines of the Moran 410 version arrived too, but photographs have not proved this as yet. Courses for additional training on this aircraft type, as well as for the Fiat G. 50, had been held at Lučko airfield within the 1st Air Force Group, since October 1943. The course leader was Senior Flight Captain E. Turko. In February 1944, a group of pilots and technical personnel were sent to Langendiebach, in Germany, to be trained. The training was aimed at enabling them to tow Gota and DFS transport gliders. Pilots for both the towing aircraft and the gliders were trained. The author spoke with one of the pilots from this group, Š. Miletić, who declared that after returning to Croatia they did not get an opportunity to fly these glider types. The Germans used them during the airborne attack on Drvar.

From February onwards, all Bü 131 and 133 types were sent to Borovo, for the needs of the 1st Pilot School. Only two machines were kept at Zagreb for the needs of the Air Force Commander, and for training pilots of the 11th Group. After these aircraft had arrived in Croatia, an adaptation was performed, so that the handle for starting the engine was turned "backwards" after the engine was started. Before the aircraft were sent to Borovo, this was returned to its initial state on all aircraft, whereby the handle was turned "forwards".

Personnel were sent to Balzano, Vercellia, Milan, and Turin, in order to take over new Ca 311 and Saiman 200 aircraft, as well as spare parts for the Fiat G. 50s and Ca 311s. It is not known what was accomplished of this mission.

In 1944, the Allied Air Forces appeared more extensively over Croatia. They attacked, road communications, railway centres, and airfields. Such attacks significantly reduced the intensity of the Air Force's combat action against the Partisan forces in Eastern Croatia, and western parts of Bosnia.

On 5th April, Spitfires of the 2nd SAAF Squadron, that were flown by South African pilots (some sources report that these were American P-47 Thunderbolts from 332nd FG, 15th AF), launched an unexpected attack on Zalužani airfield of the 5th Air Base, and managed to destroy a large number of aircraft that were situated on the aprons. One of the bombs exploded next to Lieutenant Cvitan Galić's Moran

izvršena je preinaka pa se ručica za startanje motora okretala "unatrag". Prije no što su upućeni u Borovo, na svim je primjercima vraćeno prvobitno stanje, tako da se okretanje obavljalo "unaprijed".

U Balzano, Vercelliu, Milano i Torino upućeno je osoblje radi preuzimanja novih zrakoplova Ca 311, Saiman 200, te pričuvnih dijelova za Fiat G. 50 i Ca 311. Nije poznato što je pri tom ostvareno.

U 1944. godini savezničko zrakoplovstvo još se intenzivnije pojavljuje iznad Hrvatske. Napadalo je cestovne komunikacije, željeznička čvorišta i uzletišta. Ovakvi su napadaji bitno smanjili intenzitet borbenih akcija zrakoplovstva protiv partizanskih snaga na istoku Hrvatske i u zapadnim dijelovima Bosne.

Dana 5. travnja Spitfirei 2. squadrona SAAF-a, kojima su pilotirali južnoafrički piloti (prema nekim izvorima riječ je o američkim P-47 Thunderboltima iz 332. FG, 15. AF), iznenadnim su napadajem na uzletište Zalužani 5. zrakoplovne luke uspjeli uništiti veći broj zrakoplova koji su se nalazili na stajankama. U neposrednoj blizini Morana 406 natporučnika Cvitana Galića eksplodirala je jedna od bomba, potpuno uništivši i zapalivši letjelicu, pri čemu je pilot poginuo. Njegovo tijelo prevezeno je u Zagreb, gdje je 8. travnja na groblju Mirogoj pokopano. Posmrtni govor održao je zapovjednik Bojnog zrakoplovstva pukovnik Adalbert Rogulja.

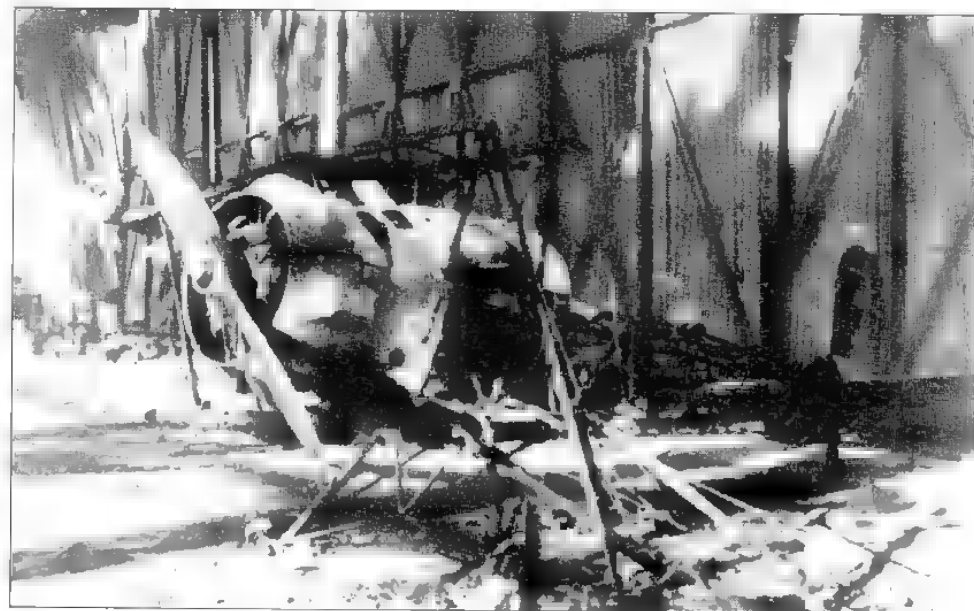
Saveznička bombardiranja proširuju se i na jadransku obalu pri čemu su teško oštećene luke u Zadru, Rijeci i Puli.

Pri napadaju američkih bombardera 12. travnja 1. zrakoplovna luka vrlo je teško stradala. Oštećena su uzletišta, hangari i radionice u Lučkom i Borongaju, a veći broj letjelica je izbačen iz uporabe (jedna Avia-Fokker F. 39, dvije Avie-Fokker F VII, dva Fiata G. 50, jedan Moran 406, jedan Bü 181, 1 FL 3, dva Do 17 K, dva Saiman 200, dva Poteza XXV, te više njemačkih letjelica Ju 87, Ju 52). Napadaj je ponovljen 30. lipnja, ali s mnogo manje štete jer su zrakoplovi razmješteni na više uzletišta i dobro su prikriveni. Takve napadače nije bilo moguće spriječiti jer su moderni lovci i dalje bili malobrojni, a i nisu pripadali najkvalitetnijim tipovima. Osim toga, nestašica je goriva bila sve veća, osobito u narednom razdoblju. Saveznička bombardiranja naftnih postrojenja, rafinerija i skladišta goriva u Hrvatskoj i susjednim zemljama, smanjila su zalihe na minimum. Takva situacija nalažala je promjene u načinu korištenja zrakoplova. Letjelice koje su trošile mnogo goriva upotrebljavale su se samo u krajnje nužnim prilikama. Za bombardiranje svih nejasnih i manjih ciljeva koristili su se isključivo manji jednomotorni zrakoplovi (F P. 2, P.V.T., R-100, Potez XXV i slični). U to vrijeme praktično i nije bilo iole prikladnog zrakoplova na koji nisu bili

406, totally destroying and setting fire to the aircraft, while the pilot himself was killed. His remains were transported to Zagreb, where he was buried at Mirogoj cemetery. The commander of the Combat Air Force, Adalbert Rogulja, gave the eulogy.

Allied bombing raids spread to the Adriatic Coast and severely damaged the harbours at Zadar, Rijeka, and Pula.

During an attack by American bombers on 12th April, the 1st Air Base suffered particularly heavy damage. The airfields, hangars, and workshops at Lučko and Borongaj were damaged, and many aircraft were put out of action (one Avia-Fokker F. 39, two Avia-Fokker F VIIs, two Fiat G. 50s, one Moran 406, one Bü 181, one FL 3, two Do 17 Ks, two Saiman 200s, two Potez XXVs, and several German aircraft: Ju 87s and Ju 52s). The attack was repeated on 30th June, but with far less damage, because the aircraft had been dispersed to various airfields and were camouflaged well. Such attacks could not have been prevented, as there were still few modern fighters, and they were not of the finest types. Besides, there was a great lack of fuel that was to become even more pronounced in the ensuing period. Allied



97. Uništeni Bü 133 Jungmeister na uzletištu u okolini Zagreba
97. A destroyed Bü 133 Jungmeister at an airfield near Zagreb.



98. Ostaci Dorniera Do 17 Ka-2 i Salmsona 200 nakon savezničkog bombardiranja

98. The remains of a Dornier Do 17 Ka-2 and a Salmson 200, after Allied bombing.

ugrađeni nosači za bombe od 2 i 12 kg. Dvomotorci se više nisu koristili za izvidanje, prijevoz osoba i bacanje letaka. Praksa je pokazala da za prijevoz četiriju osoba manje goriva potroše četiri Be-51, nego jedan Do 17. Problem nabavke pričuvnih dijelova također je ograničavao uporabu zrakoplova.

U proljeće 1944. godine u 15. bombašku legionarsku skupinu, koja je nastala od 15 Staffela/KG 53 nakon povratka s istočnog bojišta, uključeno je nekoliko njemačkih zrakoplova Ju 87 B, na kojima je dio pilota započeo izobrazbu. Kao dio "Hrvatske izobrazbene skupine", koja je osnovana nakon raspuštanja Legije, ova postrojba je premještena u istočnu Prusiju, gdje je sa zrakoplovima Ju 87 vjerojatno kraće vrijeme izvršavala i borbene zadaće.

Sredinom godine iz njemačkih su izvora u Hrvatsku napokon stigli prvi, zaista, moderni lovci – talijanski Macchi C. 202 Folgore. Piloti su ih preletjeli iz tvornice "Sesto San Giovanni" pokraj Milana. Došli su u sastav 11. lovačkog jata 4. legionarske skupine s bazom na uzletištu Kurilovec pokraj Velike Gorice. U jednom izvješću Zapovjedništva zrakoplovstva navodi se da je pilot vodnik Ivan Kulić poginuo prilikom pada modela C. 202 pokraj Osijeka. Broj prispjelih letjelica C. 202 za sada nije

bombings of oil plants, refineries, and fuel depots, in Croatia and neighbouring countries, had reduced the supply to a minimum. Such a situation dictated a change in the way the aircraft were used. Aircraft that used a lot of fuel were employed only in the utmost urgent of conditions. Smaller single-engine aircraft (FP.2, P.V.T., R-100, Potez XXV and the like) were exclusively used for the bombing of all camouflaged, and small, targets. There were practically no planes at that time without pylons for 2 and 12 kg bombs built onto them. The twin-engine aircraft were no longer used for reconnaissance missions, transporting people, or dropping leaflets. Practice showed that when transporting four people, less fuel was used by four Be-51s, than by one Do 17. The problem of acquiring spare parts also limited aircraft use.

In the spring of 1944, the 15th Legionary Bomber Group, which had been formed from the 15th Staffel/KG 53 after its return from the Eastern Front, was joined by several German Ju 87 aircraft, on which some of the pilots began training. As part of "The Croatian Educational Group" that was established after the Legion had been disbanded, this formation was transferred to Eastern Prussia where it saw action with Ju 87 aircraft, probably for just a short time.



99. Macchi C. 202. Obratiti pozornost na spinner koji je maskirnoj boji ostalog dijela zrakoplova i crveni broj "1" na trupu.

99. A Macchi C.202. Notice that the spinner was the same camouflage colour as the rest of the aircraft, and a red number "1" was on the fuselage.

poznat. Njemačka izvješća sadrže i podatke o starijem tipu lovca Macchi, koji je dopremljen u Hrvatsku. Riječ je o modelu M.C. 200. To su potvrdili i neki piloti, ali autori u arhivskoj građi Zapovjedništva Bojnog zrakoplovstva o tome nisu pronašli potvrdu. Na rijetkim fotografijama letjelice C. 202. za jedan primjerak je uvrđeno da pripada seriji XII. s brojem MM 91010. Proizveden je u tvornici Breda tijekom 1943. godine.

Krajem lipnja u Zagreb je stiglo prvih 15 zrakoplova Bü 181 Bestmann. Po pet ih je raspoređeno u 19. i 20. prijenosno jato, te u 1. pilotsku školu. Osim za zadatke veze, upotrebljavali su se i za prijevoz svježeg mesa iz Bosne u glavni grad, gdje je vladala nestašica hrane. Iako su partizanske postrojbe u istočnim dijelovima nekadašnje Jugoslavije znatno napredovale, tvornica "WNF" u Zemunu i dalje je slala popravljene zrakoplove. Početkom kolovoza u 3. jato stigao je jedan Do 17, u 19. jato Hirtenberg-Hopfner WN-15, a u 4. jato pet novoizrađenih Fizira FP. 2 (reg. br. 6819 do 6823).

Sredinom 1944. godine savezničko zrakoplovstvo započinje opsežnu akciju zračne opskrbe hranom, oružjem i lijekovima partizanskog pokreta. Pomoć se izbacivala padobranskim kontejnerima, a poslije su američke i britanske Dakote, te ruski Li-2 slijetali na mnogobrojna partizanska uzletišta. Za izbacivanje padobranskih kontejnera rabili su se i neki od talijanskih višemotornih bombardera. Dakote su pri povratku prevozili ranjenike u savezničke bolnice u Italiji. Njemačko i hrvatsko zrakoplovstvo, počevši od 25. lipnja sve do 31. listopada, izvelo je niz zračnih napadaja na uzletišta i područja na koja je stizala pomoć. Ta je operacija nazvana "Casanova". Iz jedne od naredaba Zapovjedništva zrakoplovstva NDH, upućene 1. i 5. zrakoplovnoj luci, vidljivo je da su već određeno vrijeme bili upoznati s činjenicom da partizani noću pale svjetla i daju razne signale na zvuk savezničkih zrakoplova. Tako su označavali mjesta gdje je trebalo izbacivati pomoć. Zbog toga je naređeno da najiskusnije hrvatske posade dvomotornih letjelica sat-dva prije svitanja lete iznad tih područja bez borbenog djelovanja, kako bi dovele partizane u zabludu. Raspored svjetala i signala je detaljno bilježen pa su, davajući slične signale, pojedine hrvatske postrojbe navele savezničke pilote da njima izbace pomoć. Obavljala su se stalna izvidanja neprijateljskih uzletišta, nakon čega su se napadala. Noću 22. lipnja jedan njemački noćni lovac uspio je srušiti britanski zrakoplov C-47. Dostavljanje pomoći nije zaustavljeno, a zbog izrazite savezničke nadmoći u zraku, njezin je opseg čak i povećan.

Pilot Vojnog zrakoplovstva NDH Andrija Arapović prebjegao je 2. rujna 1944. na otok Vis, gdje je u to vrijeme bila velika partizanska baza. Zrakoplov Fiat G. 50 bis



100. Bü 181 Bestmann negdje u Bosni.

100. Bü 181 Bestmann somewhere in Bosnia.

In the middle of the year, the first really modern fighters - the Italian Macchi C. 202 Folgore - finally arrived in Croatia from German sources. The pilots flew them over from the "Sesto San Giovanni" factory, near Milan. They arrived at the 11th Fighter Squadron of the 4th Legionary Group, based at Kurilovec airfield, near Velika Gorica. A report by the Air Force Command states that the pilot, Sergeant Ivan Kulić, was killed when a model C. 202 crashed near Osijek. The number of C. 202 aircraft received is not known as yet. German reports also contain data on an older type of Macchi fighter that was delivered to Croatia, namely the M.C. 200 model. Some pilots have confirmed this, but the author did not find any confirmation of this in the archival material of the Combat Air Force Command. It has been determined from rare photographs of C. 202 aircraft, that one machine belonged to series XII, with number MM 91010. It was manufactured in the Breda factory during 1943.

Towards the end of June, the first fifteen Bü 181 Bestmann aircraft arrived at Zagreb. The 19th and 20th Transport Squadrons received five each, and so did the 1st Pilot School. Besides liaison duties, they were used to transport fresh meal supplies from Bosnia to the capital, where there was a food shortage. Although the Partisan formations in eastern parts of the former Yugoslavia advanced rapidly, the "WNF" factory in Zemun kept sending repaired aircraft. At the beginning of August,



101. Fiat G. 50 bis. Snimljen na Visu 1944. nakon prebjega pilota Andrije Arapovića.

101. A Fiat G.50 bis. Photographed on Vis, in 1944, after the pilot, Andrija Arapović, had defected.

nosio je reg. br. 3505, a prepoznatljiv je bio po crno-bijeloj spirali na spinneru. Pred sam kraj rata, taj pilot preletio ga je u Beograd, gdje je zrakoplov doživio udes. Letjelica se i danas nalazi u muzeju na Surčinu, a nakon restauracije koja je u tijeku i dalje će zadržati nekadašnje hrvatske oznake.

Jedan od najtežih gubitaka u tijeku rata zrakoplovstvo NDH doživjelo je u noći 21. na 22. rujna, nakon napadaja jedne partizanske brigade na uzletište Zalužani. Kompletna 5. zrakoplovna luka, kao i veći dio grada Banje Luke je zauzet. Zarobljen je velik broj zrakoplova – šest potpuno ispravnih (jedan Moran 406, jedan Ca 311, jedan Bü 131 i jedan FL 3) i pet neispravnih (jedan Ca 311, dva Morana 406 i dva Be-51). Veći dio osoblja se predao (gotovo dvjesto), a partizani su došli u posjed 400 tona goriva, više od 17 000 komada različitih avionskih bomba i mnogo druge opreme. Njemačke i hrvatske postrojbe otpor su pružale samo u kamenoj tvrđavi Kastel, koja se nalazila u samom gradu na obali rijeke Vrbas. Ispravne zrakoplove partizani su odmah upotrijebili za napadaje na tvrđavu, a osim razornih bomba, koristili su i improvizirane zapaljive bombe. U Zalužane je preletio i Ca 311 s pilotom

a Do 17 arrived at the 3rd Squadron, ■ Hirtenberg-Hopfner WN-15 arrived at the 19th Squadron, and five newly manufactured Fizir FP. 2s (serial numbers 6819-6823) arrived at the 4th Squadron.

In the middle of 1944, the Allied Air Forces launched an extensive operation of airlifting food, weapons, and medicines, to the Partisan movement. Aid was dropped in containers by parachute, and later, American and British Dakotas and Russian Li-2s, landed at many Partisan airfields. Some Italian multi-engine bombers were used for dropping the parachute containers. After dropping aid, the Dakotas would transport wounded Partisans to Allied hospitals in Italy. From 25th June to 31st October, the German and Croatian Air Forces performed a series of aerial attacks on airfields and areas in which aid was arriving. This operation was named "Casanova". One of the orders issued by the Air Force Command to the 1st and 5th Air Bases shows that they had been aware, for some time, of the fact that the Partisans turned lights on at night and sent various signals when hearing Allied aircraft approach, thus marking the places where aid needed to be dropped. For this reason, the most experienced Croatian crew of twin-engine aircraft were ordered to fly above these areas an hour or two before dawn, without engaging in combat, in order to confuse the Partisans. The pattern of lights and signals was recorded in detail, and thus, by sending similar signals, some Croatian units misled Allied pilots into dropping aid to them. Constant reconnaissance missions of enemy airfields were performed, after which they were attacked. On the night of 22nd June, one German night fighter managed to shoot down a British C-47 aircraft. The delivery of aid was not stopped, and owing to Allied air superiority, its volume even increased.

Croatian Air Force pilot Andrija Arapović defected on 2nd September 1944 to the island of Vis, where a large Partisan base was stationed at the time. His Fiat G. 50 bis aircraft bore the serial number 3505 and was recognisable by a black and white spiral on the spinner. Just before the end of the war, this pilot flew the aircraft over to Belgrade, where it crashed. Today, the aircraft lies in the museum at Surčin, and after the restoration that is currently in progress, it will retain its former Croatian markings.

One of the heaviest losses of the entire war for the Croatian Air Force took place on the night between 21st and 22nd September, after a Partisan brigade attack on Zalužani airfield. The whole 5th Air Base, and most of the town of Banja Luka, were captured. A significant number of aircraft were captured - six completely airworthy ones (one Moran 406, one Ca 311, one Bü 131, and one FL 3), plus five faulty ones (one Ca 311, two Moran 406s, and two Be-51s). The majority of person-

koji je već ranije iz Rajlovca prebjegao na njihovu stranu. Priključio se bombardiranju Kastela. Jedan Moran, na kojemu su sada bile crvene petokrake zvijezde, srušio je pokraj sela Trapist njemački Junkers W 34. Njemačko-hrvatske snage uspjele su 28. rujna ponovno vratiti pod svoju kontrolu cijeli grad i uzletište. Pri povlačenju, partizani su zapalili sve zrakoplove koje nisu mogli dovesti u letno stanje. Tako je 5. zrakoplovna luka praktički prestala postojati.

U rujnu je u Hrvatsku stiglo najmanje 11 primjeraka vrlo egzotičnog njemačkog dvokrilca Fiesler Fi 167. Taj tip prvobitno je bio namijenjen nedovršenom nosaču zrakoplova "Graf Zappelin". Dodijeljeni su 1. jatu u Zagrebu. Piloti su nakon kratkog tečaja, koji je počeo 18. rujna vrlo brzo ovladali tim tipom i najčešće ga koristili za prijevoz streljiva, opreme, hrane, kao i osoblja. Zvali su ga "Veliki Fiesler", jer je bio mnogo veći od Rode Fi 156. Cijenili su njegovu robusnost i mogućnost nošenja velikog tereta, što mu je omogućavao motor Daimler-Benz, koji je ugrađivan i u tip Bf 109. Mogao je slijetati na vrlo kratke staze i polijetati s njih, što je bilo vrlo korisno na improviziranim uzletištim.

Dana 25. rujna pilot Romeo Adum je jednim od tih zrakoplova, reg. br. 4808, prebjegao na partizansko uzletište kod Topuskog. Hrvatski su grbovi odmah prebojeni i nacrtane improvizirane partizanske oznake. Iz Topuskog je premješten na otok Vis, gdje su se već nalazili i neki drugi zrakoplovi s kojima su piloti prebjegli partizanima (jedan FP. 2 reg. br. 6822, dva Saimana 200, jedan Bü 131, te Fiat G. 50). Sudbina tog zrakoplova vrlo je zanimljiva. Pilot M. Lipovšćak sa strijelcem S. Najdanovićem i navigatorom I. Konteom sletio je 17. listopada u podnožje planine Šator, pokraj sela Tičeva sa zadatkom da na Vis preveze generala Četkovića. U povratku na Vis, na generalov zahtjev, nadletjeli su selo Vrdovo, gdje se nalazilo zapovjedništvo 20. divizije Osmog korpusa Narodnooslobodilačke vojske Jugoslavije, te su izbacili paketić s naredbama. Nakon izbacivanja paketića, Fiesler se počeo uzdizati u blagom zaokretu u kojem su ga iz zadnje polusfere napala četiri zrakoplova P-51 Mustang britanskog RAF-a, kojima su pilotirali južnoafrički piloti. Pogoden je od repa prema motoru te se zapalio u zraku. Ranjeni je pilot ugledao mali dio koliko-toliko ravnog terena na kamenom platou i uspio sletjeti. Posada zrakoplova iz goruće olupine izvukla je generala Četkovića, ali je on već bio mrtav, pogođen strojničkim streljivom. Iako je naknadno stigla RAF-ova isprika s obrazloženjem da piloti nisu uočili partizanske oznake, okolnosti tog rušenja do danas nisu razjašnjene. Autor je osobno razgovarao s pilotom koji tvrdi da su vremenske prilike bile takve da su Mustanzi morali uočiti jasno raspoznatljive oznake partizanskog zrakoplovstva.

nel gave themselves up (nearly two hundred of them), and the Partisans came into possession of 400 tons of fuel, more than 17,000 pieces of various aircraft bombs, and lots of other equipment. The German and Croatian formations resisted only in the stone Kastel (fortress) that was located in the town itself, and on the banks of the river Vrbas. The Partisans immediately sent the airworthy aircraft to attack the fortress, and apart from high-explosive bombs, also used improvised incendiary bombs. A Ca 311 flew over to Zalužani with the pilot that had defected to their side earlier, from Rajlovac. He joined in the bombing of the Kastel. A Moran, on which there were then red five-pointed stars, was shot down near the village of Trapist, by a German Junkers W 34. On 28th September, the German-Croatian forces managed to regain control over the entire town and the airfield. During their retreat, the Partisans set fire to all the aircraft that they could not make airworthy. That is how the 5th Air Base practically ceased to exist.

In September, at least eleven very exotic German Fiesler Fi 167 biplanes arrived in Croatia. This aircraft type was originally intended for the unfinished aircraft carrier "Graf Zeppelin". They were assigned to the 1st Squadron at Zagreb. After a brief course commencing on 18th September, the pilots mastered this aircraft very quickly, using it mostly for transporting ammunition, equipment, food, and personnel. It was called "The Great Fiesler", differing from the much smaller Roda (Stork) Fi 156. It was respected for its robustness and its ability to carry a significant load; made possible by the Daimler-Benz engine that was also built into the Bf 109 type. It could take off and land on very short airstrips, which was very useful when landing on improvised airfields.

On 25th September, pilot Romeo Adum defected with one of these aircraft (serial no. 4808) to the Partisan airfield at Topusko. Here the Croatian coats-of-arms was immediately painted over, and improvised Partisan markings were applied. It was transferred from Topusko to the island of Vis, where there were already some other aircraft with which pilots had defected to the Partisans (one FP 2, serial no. 6822, two Saiman 200s, one Bü 131, and one Fiat G. 50). The fate of this aircraft is very interesting. On 17th October, pilot M. Lipovšćak, with gunner S. Najdanović, and navigator I. Konte, landed at the foot of the Šator Mountain, near the village of Tičevo, with an order to fly General Četković over to Vis. While they were returning to Vis, at the General's request, they flew over the village of Vrdovo, where the Command of the 20th Division, of the VIII Corps, of the National Liberation Army of Yugoslavia (NOVJ) was located, and dropped a package with orders in it. After the package had been dropped, the Fiesler began to rise, turning slightly, when it was attacked from the rear hemisphere by four P-51 Mustangs of the British RAF, piloted by South



102. Fiesler Fi 167, reg. br. 4808, Topusko, 25. rujna 1944.

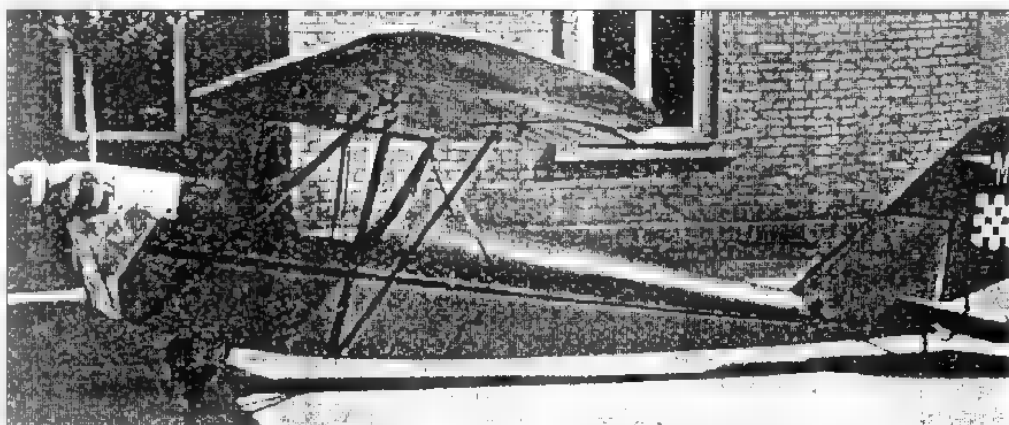
102. Fiesler Fi 167, serial no. 4808. Topusko, 25th September 1944.

U listopadu je još jedan Fiesler 167, ovaj put s pilotom NDH Matom Jurkovićem, imao bliski susret s Mustanzima. Prilikom prevoženja streljiva za Bosansku Gradišku, 10. listopada, njegov je zrakoplov napala skupina od pet zrakoplova P-51, ali je pilot, koristeći se Fieslerovim vrlo dobrim manevarskim sposobnostima na

Africans. It was hit from the tail up to the engine, and caught fire in the air. The wounded pilot managed to spot a small patch of somewhat flat terrain, on a stone plateau, and landed successfully. The crew dragged General Četković from the burning wreck, but he was already dead, having been hit by machine-gun fire. Although

malim visinama, uspio pobjeći progoniteljima. Pojedini primjerci tipa Fi 167 "preživjeli" su rat i korišteni su u Jugoslavenskom ratnom zrakoplovstvu.

Tijekom 1944. godine u sastav zrakoplovstva uvrštena je i jedina letjelica konstruirana i izrađena u Hrvatskoj. Riječ je o lakom visokokrilnom jednosjedu, namijenjenom sportsko-školskim svrhama, tipa J. M. 8, konstruktora Josipa Modlija zrakoplovnog satnika. Proizvedena je u Tehničkoj radionici 1. zrakoplovne luke u Zagrebu. Drveno-platnena letjelica opremljena je motorom male snage Praga B, koji joj je omogućavao maksimalnu brzinu od samo 115 km/h. Mogla je poletjeti sa staze duge samo 150 m, a sletjeti na još kraću – 100 m. Osnovni tehnički podaci tog tipa jesu: dužina 6.13 m, raspon krila 9.50 m, visina 1.8 m, težina 205 kg, maksimalna poletna težina 300 kg. Osim prototipnog primjerka, nije proizveden više ni jedan primjerak.



103. Modly J. M. 8. Prototip jedinog zrakoplova proizvedenog u Hrvatskoj. Natpis na vertikalnom stabilizatoru "J. M. 8".

103. The Modly J.M.8. The prototype of the only aircraft manufactured in Croatia. The inscription on the rudder was "J.M.8".

Iz službenih sačuvanih dokumenata, 1. listopada 1944. Vojno zrakoplovstvo NDH u tri stalne zrakoplovne luke raspolagalo je sa pet zrakoplovnih skupina i ukupno 15 jata. Točan broj zrakoplova teško je utvrditi. Organizacija zrakoplovstva prikazana je u tablici 4. Kao i u ranijim pregledima koji su rađeni na osnovi službenih dokumenata pohranjenih u arhivama, i u ovom se može primijetiti da su u pojedina jata uvrštavani, odnosno određivani zrakoplovi koji će u Hrvatsku tek stići. U tom su pregledu primjer za to tipovi Bf 109 G, uvršteni u sastav 2. jata, iako su u Hrvatsku stvarno stigli tek u siječnju sljedeće godine.

the RAF apologised afterwards, explaining that the pilots had not seen the Partisan markings, the circumstances regarding this event are still unclear today. The author personally spoke with the pilot who claims that the weather was such that the Mustangs must have been able to see the clearly recognisable markings of the Partisan Air Force.

In the month of October, another Fiesler 167, with Croatian pilot Mate Jurković, had a close encounter with Mustangs. On 10th October, while transporting ammunition to Bosanska Gradiška, his aircraft, was attacked by a group of five P-51 aircraft. However, by taking advantage of the very good manoeuvrability of the Fiesler at low heights, the pilot managed to escape his pursuers. Certain Fi 167 types "survived" the war and were used in the Yugoslav Air Force.

During 1944, the one and only aircraft designed and manufactured in Croatia was acquired by the Air Force. This was the J. M. 8 type, a light, high-winged, one-seater, intended for purposes of sport and training, and constructed by Flight Captain Josip Modly. It was manufactured at the technical workshop of the 1st Air Base at Zagreb. The wooden-canvass aircraft was equipped with a weak Praga B engine that enabled her to fly at a maximum speed of only 115 km/h. It could take off from an airstrip only 150m long and land on an even shorter one: 100m. The basic technical details of this type are: length - 6.13m, wing span - 9.50m, height - 1.8m, weight - 205 kg, maximum take-off weight - 300 kg. Apart from the prototype, no subsequent ones were made.

Based on surviving official documents, on 1st October 1944, the Croatian Air Force had at its disposal five aircraft groups, and a total of fifteen squadrons at its three permanent air bases. The exact number of aircraft is difficult to determine. Table 4 shows the organisation of the Military Air Force. As in previous tables created from official documents preserved in archives, one can notice that in this case, the squadrons include aircraft that were to arrive in Croatia only later. In this table, an example of this are the Bf 109 G types included in the 2nd Squadron, for they actually only arrived in Croatia in January of the following year.

In this period, attacks by Allied aircraft became even more fierce, and many auxiliary airfields were used for despatching aircraft: Bjelovar, Karlovac, Križevci, Slavonski Brod, Kutina, Samobor, Koprivnica, and others. Around mid-January, Bjelovar, for example was the location of the 13th Squadron, with Commander Ljudevit Bencetić, another ace from the Eastern Front. Besides him, there were eight other pilots there. Due to an obvious lack of available aircraft, they were often transferred from one squadron to another. However, smaller batches of aircraft were

U tom razdoblju napadi savezničkih zrakoplova postali su još snažniji, pa su se za razmještanje letjelica koristila mnoga pomoćna uzletišta – Bjelovar, Karlovac, Križevci, Slavonski Brod, Kutina, Samobor, Koprivnica i druga. U Bjelovaru se, npr., sredinom siječnja nalazilo 13. jato sa zapovjednikom Ljudevitom Bencetićem, još jednim asom s istočne bojišnice. Uz njega su još bila osmorica pilota. Zbog očitog pomanjkanja raspoloživih zrakoplova, oni su često premiješteni iz jata u jato. Ipak, iz Njemačke i u to vrijeme stižu manje količine letjelica. Dio zrakoplova dolazi iz dijela Italije koji je bio pod njemačkim nadzorom.

U Toliedo pokraj Milana 30. listopada upućena je skupina pilota, izvidnika i mehaničara radi preuzimanja novih zrakoplova i preleta u Zagreb. Prema sastavu osoblja može se zaključiti da su vjerojatno preletali dvomotorne bombardere. Iz Njemačke su 20., 24. i 29. studenog izvršeni preleti zrakoplova, ali iz broja upućivanih pilota i osoblja može se zaključiti da se radilo o relativno manjim količinama (15 pilota, pet izvidnika, jedan mehaničar). Tri posade, vjerojatno za prelet tipa Do 17 određene su 130. prosinca.

Posljednjeg dana 1944. godine posada bombardera Do 17E, s pilotom Tomislavom Burićem pogocima bomba uništila je britanski Halifax, koji je sletio pokraj mjesta Grabovnica (u blizini Čazme). Taj Dornier (reg. br. 0330), sačuvan je do kraja rata. Posada je odlikovana Velikom srebrnom kolajnom za hrabrost.



104. Morane Saulnier MS 406 C-1 na sniježom prekrivenom uzletištu Zalužani kraj Banje Luke. Može se primijetiti da je 1/3 spinnera bijele boje.

104. A Morane Saulnier MS 406 C-1 on the snow-covered Zalužani airfield, near Banja Luka. Notice that 1/3 of the spinner was white.

arriving from Germany even at that time. Some of the aircraft came from that part of Italy under German supervision.

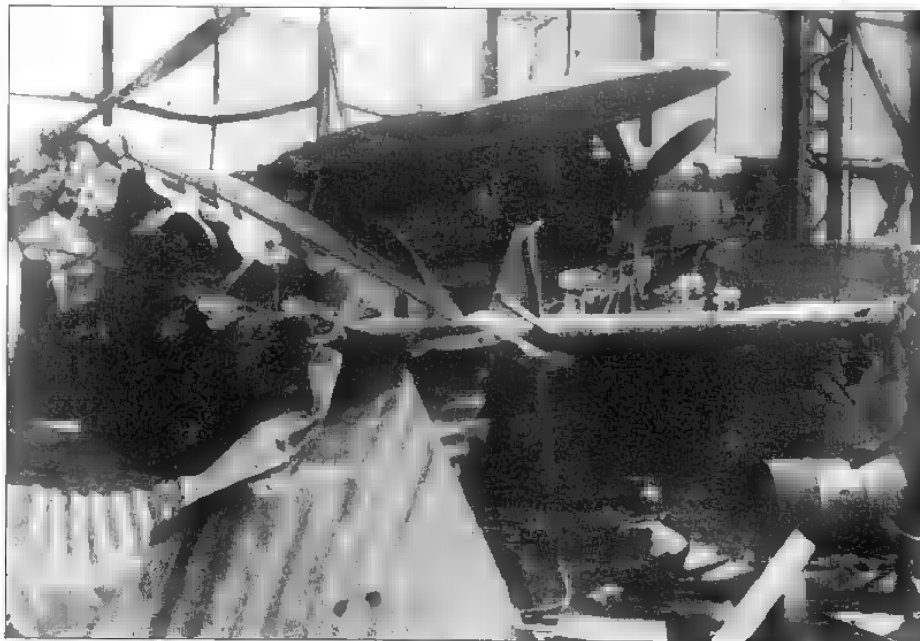
On 30th October, a group of pilots, observers, and mechanics, were sent to Toliedo, near Milan, in order to take over new aircraft and fly them to Zagreb. The personnel structure indicates that they probably flew over twin-engine bombers. On 20th, 24th, and 29th November, aircraft were flown from Germany, but from the number of pilots and personnel sent, one can conclude that the quantity of aircraft was relatively small (fifteen pilots, five observers, and one mechanic). Three crews, probably for flying over the Do 17 type, were also sent on 30th December.

On the last day of 1944, the crew of a Do 17 bomber, with pilot Tomislav Burić, destroyed a British Halifax that had landed near the town of Grabovnica (near Čazma), with bomb hits. This Dornier, serial no. 0330, was preserved till the end of the war. The crew was later decorated with the Ante Pavelić Silver Medal for Courage.



105. Macchi C. 202 na kojem se može uočiti da pripada seriji XII M. M. 91910. Bijela traka nalazi se oko trupa odmah iza pilotske kabine. Između pilota nazire se oznaka, ali nije moguće s točnošću utvrditi radi li se o njemačkoj oznaci (križu) ili hrvatskom trolistu.

105. A Macchi C.202, on which one can note that it belonged to series XII, M.M.91910. There was a white band around the fuselage, right behind the cockpit. Between the pilots, a marking can be discerned, but it cannot be determined with certainty whether it was a German cross, or the Croatian trefoil.



106. Uništen MS 406 u hangaru jednog od uzletišta u okolici Zagreba nakon savezničkog bombardiranja. Spinner elise je maskirno bojen, kao i bokovi trupa. Državni grb još nije nacrtan na vertikalnom stabilizatoru, te se može pretpostaviti da je tek stigao u Hrvatsku. U pozadini uništen Do 17 Ka-2.

106. A destroyed MS 406 in the hangar of one of the airfields near Zagreb, after Allied bombing. The propeller spinner was painted in camouflage and so were the fuselage sides. The state coat-of-arms had not yet been drawn on the rudder, so one can suppose that it had just arrived in Croatia. In the background there is a destroyed Do 17 Ka-2.



107. Jedan od rijetkih primjeraka lovca Macchi C. 202 korištenih u Hrvatskoj. Primjećuje se maskirno bojen spinner elise, te žuta traka oko stražnjeg dijela trupa.

107. One of the rare Macchi C.202 fighters used in Croatia. Notice the camouflage colour of the spinner and propeller, and the yellow band around the rear part of the fuselage.



108. Macchi C. 202 s bijelim ili žutim brojem "4"

108. A Macchi C.202 with a white or yellow number "4".

1. LISTOPADA 1944. – ORGANIZACIJA I SASTAV LETAČKIH POSTROJBI VOJNOG ZRAKOPLOVSTVA

1ST OCTOBER 1944 – ORGANISATION AND COMPOSITION OF THE MILITARY AIR FORCE

Skupina Group	Jato Squadron	Korišteni zrakoplovi Aircraft used	Napomene Notes
1. Zrakoplovna luka Zagreb 1 st Air Base Zagreb			
1. Skupina 1 st Group	1. Jato – mješovito 1 st Squadron – mixed	Fi 167 A-0	
	2. Jato – lovačko 2 nd Squadron – fighters	Fiat G.50 bis, MS 406, Bf 109 G	
	3. Jato – bombardersko 3 rd Squadron – bombers	Do 17 Z, Do 17 K, Do 17 E	
	19. Jato – za vezu 19 th Squadron – liaison duties	Bü 133, Bü 181, FL 3, Potez XXV	
	21. Jato – lovačko 21 st Squadron – fighters	G.50 bis, P.V.T., MS 406, Bü 131, Bü 133	
11. Skupina 11 th Group	22. Jato – lovačko 22 nd Squadron – fighters	MS 406	Stacionirano na Butmiru. Stationed at Butmir.
	23. Jato – lovačko 23 rd Squadron – fighters	MS 406	Stacionirano u Banjoj Luci. Stationed at Banja Luka.
2. Zrakoplovna luka Sarajevo 2 nd Air Base Sarajevo			
2. Skupina 2 nd Group	4. Jato – bombardersko 4 th Squadron – bombers	Do 17 Z, Breguet XIX, Potez XXV	
	5. Jato – izvidničko 5 th Squadron – reconnaissance	F.P. 2, Potez XXV	
	6. Jato – izvidničko 6 th Squadron – reconnaissance	Breguet XIX	
	20. Jato – prijenosno 20 th Squadron – transferable	Bü 181, WN-15, Saiman 200, Be-51	
3. Zrakoplovna luka Mostar 3 rd Air Base Mostar			
3. Skupina 3 rd Group	7. Jato – bombardersko 7 th Squadron – bombers	Do 17 E, Do 17 K, F.P. 2, Saiman 200	
5. Zrakoplovna luka Banja Luka 5 th Air Base Banja Luka			
6. Skupina 6 th Group	13. Jato – bombardersko 13 th Squadron – bombers	Do 17, Bü 133, Fizir FN	
	14. Jato – lovačko 14 th Squadron – fighters	MS 406	
	15. Jato – bombardersko 15 th Squadron – bombers	Ca 311	Vjerojatno nije egzistiralo. Probably did not exist.

Godina 1945.

Pred sam kraj rata, u siječnju 1945. godine u Hrvatsku su napokon počeli stizati najmoderniji njemački lovački aparati: Bf 109 G-6, G-10 i G-14. Prema nekim izvorima postoji mogućnost da je pojedini od njih bio i inačica K-4. Namijenjeni su za naoružanje 11. i 12. lovačkog legionarskog jata, te 2. jata. U sastavu 4. lovačke legionarske skupine, koju su činili piloti vraćeni s istočnog bojišta, nalazilo se 11. i 12. jato. Skupina se formalno nalazila u sastavu Vojnog zrakoplovstva, ali je operativno i dalje bila podređena njemačkom zapovjedništvu. Za dostavu u Hrvatsku određeno je 15 tih lovaca, ali ih je pet izgubljeno u transportu. S obzirom na veliku savezničku zračnu premoć, ovako mali broj Messerschmitta nije mogao bitno utjecati na daljnji razvoj događaja. Nakon patroliranja iznad područja Sinja 16. travnja 1945. dva su hrvatska pilota sa Bf 109 G iz sastava 2. jata (Lučko-Zagreb) preletjela u Italiju i predala se Saveznicima. Pilot Josip Cvetković na Bf 109 G-10 (crni "4") sletio je u Falconaru u blizini Ancone, a Vladimir Sandtner na G-14 (crni "10") u Jessi. Prema nekim izvorima ta su dva zrakoplova činila lovačku pratnju Capronia Ca 311 u kojem je letio ministar NDH Vrančić sa memorandumom koji je trebao predati britanskom feldmaršalu H. Alexanderu, zapovjedniku savezničke vojske za Balkan u kojem je NDH nudila prelazak na stranu Saveznika. Dana 20. travnja još su dva tipa Bf 109 G-10 napustila zrakoplovstvo NDH i preletjela u Mostar, koji je tada već bio pod nadzorom Narodnooslobodilačke vojske Jugoslavije (u daljnjem tekstu NOVJ). Toga dana u 13.30 sati poletjeli su sa još dva takva zrakoplova s uzletišta Lučko, sa zadaćom da napadnu partizanske postrojbe u području ceste Kamensko-Buč-Pakrac. U visini Slavonskog Broda major Helebrant i zastavnik Tatarević odvojili su se od drugog para i sletjeli u Mostar, nekadašnju 3. zrakoplovnu luku. Helebrantov zrakoplov nosio je crni reg. br. 2103, a Tatarevićev 2105. Oznake Vojnog zrakoplovstva prebojene su tamnozelenom bojom, ■ na trupu su nacrtane zvijezde, dok je na rep preko hrvatskoga grba nanesena trobojna zastava. Registarske brojeve na trupu su zadržali i novi korisnici. Na mostarskom je uzletištu bilo i drugih zrakoplova koji su ranije preletjeli partizanima. U to vrijeme, kada se slom NDH bližio, čega su svi bili svjesni, znatan je broj pilota preletio na protivničku stranu. Do kraja travnja partizani su tako došli u posjed 30-ak letjelica.

Prebjegli tip Bf 109 s istim pilotima, ali sada za drugu stranu, prvu borbenu zadaću izvršili su 7. svibnja. Pratili su bombardere, a kad su oni izbacili bombe, topničko-strojničkom vatrom napadali su s male visine pješništvo u povlačenju na području Ivan planine, Bradine i Bjelašnice. Sutradan prelijeću u sarajevsku zračnu

The Year 1945

Just before the war ended, in January 1945, the most modern German fighter aircraft - Bf 109 G-6s, G-10s, and G-14s - finally began arriving in Croatia. According to some sources, there is a possibility that one of them was a K-4 version. They were intended for the armament of the 11th and 12th Legionary Fighter Squadrons, and other squadrons. The 11th and 12th Squadrons were a part of the 4th Legionary Fighter Group, which consisted of pilots that had returned from the Eastern Front. The group was formally a part of the Military Air Force, but was operationally still attached to the German Command. Fifteen of these fighters were chosen for delivery to Croatia, but five were lost during transport. Considering the great air superiority of the Allies, such a small number of Messerschmitts could not have significantly influenced the development of events. On 16th April 1945, after patrolling above the area of Sinj, two Croatian pilots, each with a Bf 109 belonging to the 2nd Squadron (Lučko-Zagreb), flew over to Italy, and gave themselves up to the Allies. Pilot Josip Cvetković, in a Bf 109 G-10 (black "4") landed at Falconara, near Ancona, and Vladimir Sandtner, in a G-14 (black "10"), landed at Jessi. According to some sources, these two aircraft were providing fighter escort to a Caproni Ca 311, that was carrying Croatian Minister Vrančić, with a memo that he was to deliver to British Field Marshal H. Alexander, Commander of the Allied Army of the Balkans, to whom the Croatian Government was offering to join the Allies. On 20th April, two more Bf 109 G-10 types left the Croatian Air Force and flew over to Mostar, which was already under the control of the NOVJ. At 13.30 p. m. that day, two more such aircraft took off from Lučko airfield, with a mission to attack Partisan formations around the road Kamensko-Buč-Pakrac. Above Slavonski Brod, Major Helebrant and Ensign Tatarević separated themselves from the other pair, and landed at Mostar, the former 3rd Air Base. Helebrant's aircraft carried the black serial number 2103, and Tatarević's had 2105. A dark green colour was painted over the markings of the Military Air Force, while stars were drawn on the fuselage, and a tri-coloured flag was painted over the Croatian coat-of-arms, on the tail. The new users kept the same serial numbers on the fuselage. At Mostar airfield, there were other aircraft that had previously flown over to the Partisans. At that time, when the end was drawing near for the Croatian Government, as everyone was aware, a significant number of pilots flew over to the opposition. From the end of April, the Partisans came into possession of around thirty aircraft in this way.

luku iz koje također borbeno djeluju na području rijeka Neretve, Ljute reke i Sutjeske. Napadane su postrojbe koje su se povlačile prema selu Odžaku. Pri povratku u Sarajevo, zbog gubitka orijentacije, loših vremenskih prilika i nedostatka goriva, prinudno slijeću sjeverno od rijeke Save. Tatarevićeva letjelica je teže, a Helebrantova lakše oštećena. Obje su popravljene i prebačene u Zemun.

Tijekom borbi na "Srijemskom frontu" (istočni dio Hrvatske), gdje su njemačko-hrvatske snage pokušavale zaustaviti prodiranje jakih partizanskih snaga, povremeno su se susretali hrvatski Bf 109 s protivničkim Jakovima 1, 3. i 9. Zapovjednik 113. vazduhoplovnog lovačkog puka NOVJ-a, M. Lipovšćak, autoru je osobno iznio sjećanja o tim susretima. Nekoliko je puta pokušao stupiti u borbu, ali su je letjelice Bf 109 izbjegavale, jer su bile brojčano nadjačane. Koristeći mnogo veću brzinu svojih letjelica u poniranju, piloti "Gustava" napuštali su bojišnicu.

U dnevniku letenja pilota Mihajla Jelaka može se vidjeti da je u razdoblju od 20. ožujka do 5. travnja letio na dvjema verzijama "Gustava" - G-6 i G-14. Na starijoj inačici obavljao je vježbovne letove koji su trajali od 10 do 15 minuta, a na tipu G-14 polazio je na borbene letove (npr., 20. i 23. ožujka slobodan lov, 22. pratnja bombardera Do 17, 23. polijetanje na najavljene zrakoplove, 26. napadaj na uzletište Črnomelj, 2. travnja napadaj na selo Medar, 5. izvidanje prostora okolice Gospića). Ukupno je izveo osam borbenih letova u trajanju od osam sati.

U posljednjim danima rata dio ispravnih zrakoplova Bf 109 G, pod zapovjedništvom Ljudevita Bencetića, vjerojatno je prebjegao u Austriju. Jugoslavenska narodna armija je u to vrijeme i u prvim danima nakon završetka rata na raznim uzletištima zatekla 17 zrakoplova Bf 109 ispravnih ili oštećenih (21. travnja u Slavonskom Brodu jedan neispravan, 8. svibnja na uzletištu Borongaj jedan, manje oštećen G-14 ili K-4, 9. svibnja na uzletištu Cerklje kod Brežica jedan, vjerojatno, ispravan, u radionici u Zagrebu dva neispravna vjerojatno G-14, na uzletištu Lučko četiri djelomično ispravna G-10 i G-14, na uzletištima Kurilovec i Pleso pet djelomično ispravnih, na uzletištu Črnomelj, Glina i Čazma tri primjerka). Iz Vojnog zrakoplovstva NDH vjerojatno je potjecalo pet do osam primjeraka, a ostali su bili iz njemačkih postrojbi. Uspoređujući podatke iz raznih izvora dolazi se do različitog broja pristiglih modela Bf 109 G u Hrvatsku. Autorovo mišljenje je da je ipak stiglo više od deset primjeraka, kako se navodi u talijanskim izvorima. U jutarnjim satima 23. travnja 1945, leteći na Bf 109 G-10 (? G-14) u slobodnom lovu južno od Zagreba, satnik Lj. Bencetić i poručnik M. Jelak vodili su zračnu borbu s britanskim lovcima P-51 Mustang. Na povratku u bazu primijetili su u niskom letu dva Mustanga. Prikravši im se neopaženo, satnik Bencetić je s udaljenosti od samo 80 m prvim rafalom oštetio hladnjak i

The defected Bf 109 type, together with the same pilots, but working for the opposition this time, performed its first combat mission on 7th May. They followed the bombers and when these had dropped their bombs, they attacked some Infantry retreating from a small height, with cannon and machine-gun fire in the area of Ivan-Planina, Bradina, and Bjelašnica. The following day, they flew over to Sarajevo Air Base, from which they also saw action around the rivers Neretva, Ljuta Reka, and Sutjeska. They attacked the formations that were retreating towards the village of Odžak. While returning to Sarajevo, due to mis-orientation, poor weather, and a lack of fuel, they crash-landed north of the river Sava. Tatarević's aircraft was damaged severely, and Helebrant's only slightly. Both were repaired later and transferred to Zemun.

During the fighting at the "Srijem Front Line" (eastern part of Croatia), where the German-Croatian forces were trying to stop the advance of strong Partisan forces, Croatian Bf 109s occasionally encountered enemy Jak 1st, 3rd, and 9th. The Commander of the 113th Air Force Fighter Regiment of the National Liberation Army of Yugoslavia, M. Lipovšćak, told the author his memories of these encounters. He tried to initiate combat several times, but the Bf 109 aircraft avoided this, because they were outnumbered. Taking advantage of the far greater speed of their aircraft during diving, the "Gustav" pilots would leave the front-line.

The flight diary of Mihajlo Jelak shows that during the period between 20th March and 5th April, he flew on two versions of the "Gustav" - G-6 and G-14. On the old version, he performed training flights lasting 10 to 15 minutes, while he used the G-14 type for combat flights (e.g. 20th and 23rd March - free hunting; 22nd - following a Do 17 bomber; 23rd - take-off for incoming enemy aircraft; 26th - attack on Črnomelj airfield; 2nd April - attack on the village of Medar; 5th - reconnaissance of the area around Gospić). He carried out a total of eight combat flights, lasting eight hours.

In the final days of the war, several airworthy Bf 109 G aircraft defected to Austria, under the command of Ljudevit Bencetić. At that time, and during the first few days after the war had ended, the Yugoslav National Army found at various airfields, seventeen Bf 109s that were airworthy or damaged (21st April - one faulty machine at Slavonski Brod; 8th May - one slightly damaged G-14, or K-4, at Borongaj airfield; 9th May - one probably airworthy machine at Cerklje airfield, near Brežice, two faulty machines at the workshop at Zagreb, probably G-14s, four partially airworthy G-10s and G-14s at Lučko airfield, five partially airworthy machines at Kurilovec and Pleso airfields, and one each at Črnomelj, Glina, and Čazma airfields).

krilo jednog Mustanga, koji se nakon toga zapalio. Britanski pilot je pokušao napustiti borbu ali ga je drugi rafal s još manje udaljenosti oborio. U tom su se trenutku u borbu uključila još dva Mustanga. Bf 109 poručnika Jelaka pogođen je u motor te ga je u nastavku borbe Bencetić morao štititi. Bez obzira na oštećeni zrakoplov, Jelak je uspio oštetiti jednog Mustanga koji je napustio borbu. Zračni dvoboj trajao je 10-ak minuta na području dugom 30-ak km, na raznim visinama između 2 000 m i zemlje. Nakon pojavljivanja još dvaju Mustanga, hrvatski su piloti morali prekinuti borbu.

Do sada nije objavljen podatak o tome da je u sastav hrvatskog zrakoplovstva uoči samog kraja rata uvršten i dvomotorni lovac Bf 110 G (vjerojatno inačica G-2). Autor posjeduje fotografiju jednog primjerka koji je 1945. godine uništen u jednom od savezničkih bombardiranja uzletišta u okolici Zagreba. Drugi zrakoplov je izbjegao partizansko zarobljavanje, jer je prebjegao u Austriju. Podatak o drugom primjerku još nije dovoljno potvrđen.

Zanimljiv je i podatak o modelu B-24 H Liberator, koji je u veljači pogreškom prinudno sletio na uzletište pokraj Bjelovara. Kako nije bio teško oštećen, osoblje iz zagrebačke zrakoplovne luke dolazilo je u Bjelovar i popravljalo ga. Na trupu bombardera nacrtan je veliki znak "Crne legije", ustaške postrojbe pod zapovjedništvom bojnika Rafaela Bobana koja se u to vrijeme nalazila na tom području. Liberator je popravljan i doveden u letno stanje, ali su ga na sam dan preleta za Zagreb uništili saveznički dvotrupni lovci P-38 Lightning.

Pri letu u okolini Gospića, 5 km sjeveroistočno od Perušića, 30. ožujka 1945. nekoliko savezničkih lovaca napalo je zrakoplov Do 17 I reg. br. 0401). Nakon zračne borbe u kojoj se posada Dorniera grčevito branila, zrakoplov je pogođen i zapaljen u zraku, nakon čega se srušio. Posada je poginula. Za hrabro držanje u borbi strijelac krugovalničar Josip Šemberger je posmrtno promaknut u viši čin.

U travnju 1945. izvršeno je posljednje preustrojstvo Vojnog zrakoplovstva, ali je ono manje više ostalo samo na papiru.

Za posljednjih pet mjeseci rata dostupna dokumentacija je vrlo oskudna i nekompletna, pa je vrlo teško sastaviti pregled skupina i jata, a nemoguće je utvrditi kojim se zrakoplovima, odnosno koliko raspolagalo.

Završetkom ratnih djelovanja na području Hrvatske na raznim uzletištima pronalazeni su ostaci Vojnog zrakoplovstva NDH, a mnoge su letjelice korištene u novoj Jugoslaviji. Za mnoge od pilota poražene vojske tek će nastupiti teški dani i godine. Nakon zarobljavanja ili predaje, čekali su ih zatvorski dani ili strijeljanja nakon sudskih procesa.

Five to eight machines probably originated from the Croatian Military Air Force, while the rest were from German sources. When data from different sources are compared, one finds a conflicting number of Bf 109 G models that supposedly arrived in Croatia. It is the author's opinion that more than ten machines actually arrived, as is stated in Italian sources.

In the early hours of 23rd April 1945, while flying a Bf 109 G-10 (or G-14) in open hunting, south of Zagreb, Captain Lj. Bencetić and 2nd Lieutenant M. Jelak carried out an aerial battle with British P-51 Mustang fighters. Upon returning to base they noticed two Mustangs flying low. Stealing up on them unobserved, Captain Bencetić, firing an initial machine-gun burst from just 80m, damaged the radiator and wing of one of the Mustangs, which subsequently caught fire. The British pilot tried to leave the fighting, but a second machine-gun burst from an even closer range, gunned him down. At this moment, two more Mustangs joined the action. 2nd Lieutenant Jelak's Bf 109 was hit in the engine and Bencetić had to protect him in the fighting that followed. Regardless of the damaged aircraft, Jelak managed to damage a Mustang that left the battle. The aerial duel lasted around 10 minutes, in an area around 30 km long, at various altitudes between 2,000m and the ground. After the appearance of the two additional Mustangs, Croatian pilots had to withdraw from the fighting.

So far, the fact that a twin-engine Bf-110 G fighter (probably the G-2 version) was acquired by the Croatian Air Force, just before the end of the war, has not been made public. The author has a photograph of a machine that was destroyed in 1945, during an Allied bombing raid of the airfields around Zagreb. Another aircraft escaped capture by the Partisans, because it flew over to Austria. The final disposition of the second aircraft has not yet been confirmed.

Another interesting anecdote concerns a model B-24 H Liberator that crash-landed by mistake at an airfield near Bjelovar, in February. Since it was not badly damaged, personnel from Zagreb Air Base used to come to Bjelovar to conduct repairs on it. On the fuselage of the bomber, they drew a large emblem of the "Black Legion", an Ustashi formation, under the command of Rafael Boban, which was located in the area at the time. The Liberator was repaired and made airworthy, but on the very day it was supposed to be flown to Zagreb, Allied twin-bodied P-38 Lightning fighters destroyed it.

On 30th March 1945, during a flight around Gospić, 5 km northeast of Perušić, a pair of Allied fighters attacked a Do 17 aircraft, serial no. 0401. After an aerial fight in which the Dornier's crew defended itself fiercely, the aircraft was hit and caught



109. Messerschmitt BF 110 G-2. Uništen u savezničkom bombardiranju uzletišta oko Zagreba 1945.

109. A Messerschmitt BF 110 G-2. Destroyed during Allied bombing of the airfield near Zagreb in 1945.



110. Fiesler FI 167 koji su oborili saveznički lovci P-51. Ovim je zrakoplovom pilot prebježao partizanima, te se zbog toga na vertikalnom stabilizatoru nalaze partizanske oznake.

110. A Fiesler 167 destroyed by Allied P-51 fighters. The pilot defected to the Partisans with this machine, which is why there are Partisan markings on the rudder.

fire in the air, after which it crashed. The entire crew was killed. For courageous conduct in combat, the gunner-radio operator, Josip Šemberger, was posthumously promoted in rank.

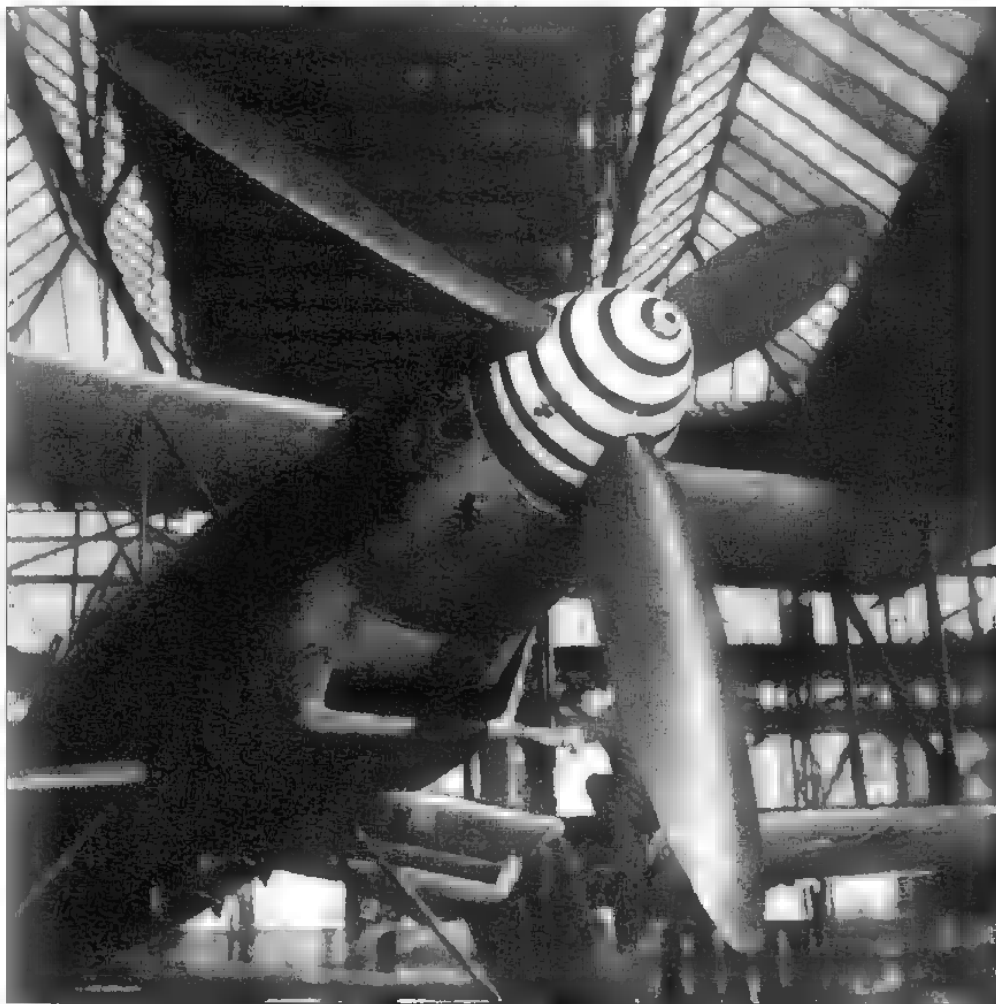
In April 1945, the Military Air Force was reorganised for the final time, but this was more or less just a formality.

Documentation regarding the final five months of the war is quite faulty and incomplete. Therefore, it is very difficult to reconstruct an accurate order of battle, and practically impossible to determine which aircraft were available, and in which numbers. When combat action ended in the region of Croatia, the remnants of the Croatian Military Air Force were found at various airfields, and many aircraft were to be used in the new Yugoslavia. Hard days and years awaited many of the pilots of the defeated army. After capture or surrender, they spent their days in prison, or were shot after judicial trials.



111. i 112. Fiesler FI 167 snimljen nakon što je pilot prebježao partizanima. Vidljivi su tragovi prekrivenih oznaka NDH i novonacrtane partizanske oznake.

111. and 112. A Fiesler FI 167, photographed after the pilot had defected to the Partisans. Note traces of repainted Croatian markings and the freshly applied Partisan markings.



113. Fiesler Fi 167 s neuobičajeno obojenim spinnerom elise. Na donjoj površini krila primjećuje se oznaka s crnim trolistom, što upućuje na to da je zrakoplov snimljen pred sam kraj rata.

113. A Fiesler Fi 167 with an unusually painted propeller spinner. On the lower wing surface there was a marking with a black trefoil that indicates that the aircraft was photographed towards the very end of the war.



114. Bf 109 G na uzletištu u okolici Zagreba u veljači 1945. Obratiti pozornost na bijeli broj "1" na poklopcu motora.

114. A Bf 109 G on an airfield near Zagreb, in February 1945. Notice the white number "1" on the engine cowling.



115. Bf 109 G-14 snimljen nakon slijetanja u Italiji

115. Bf 109 G-14, photographed upon landing in Italy.



116. i 117. Bf 109 G-10 s novim načinom obilježavanja – crni trolist
 116. and 117. A Bf 109 G-10 with a new marking system – a black trefoll.

**UPOREDNI PODACI NOVIH I STARIH REGISTARSKIH BROJEVA ZA
ZRAKOPLOVE DORNIER DO 17 E**

**COMPARATIVE CHART OF OLD AND NEW SERIAL NUMBERS
ON DORNIER DO 17 E AIRCRAFT**

Hrvatski reg. br. <i>Croatian Serial number</i>	Ranija njemačka registracija <i>Original German Serial number</i>	Brojevi motora <i>Engine number</i>
0301	853/TI+BP	
0302	898/VC+BG	
0303	811/RV+AI	
0304	2995/NV+CW	
0305	3031/PC+OC	
0306	3128/DA+EV	
0307	809/BL+US	lijevi/left 28805, desni/right 24320
0308	2048/NV+CS	lijevi/left 24593, desni/right 24680
0309	842/DP+BP	lijevi/left 24588, desni/right 24716
0310	2011/BB+IA	lijevi/left 23819, desni/right 2768
0311	2145/TI+BY	
0312	2004/UD+DS	
0313	2067/NN+DA	
0314	3057/NA+DQ	
0315	3099/BA+QX	
0316	2088/RV+AL	
0317	3024/PB+MD	
0318	3067/NA+ET	
0319	3083/TE+LN	
0320	3101/NA+DP	

* Za zrakoplove hrvatskih registarskih brojeva 0321 do 0330 nisu poznate ranije Njemačke registracije.

* For aircraft with Croatian Serial numbers 0321 thru 0330, the original German Serial numbers are not known.

ZRAKOPLOVI I JEDRILICE KORIŠTENI ■ HRVATSKOJ

AIRCRAFT AND GLIDERS USED IN CROATIA

Tip zrakoplova <i>Aircraft type</i>	Količina – godina nabavke <i>Quantity – year of acquisition</i>	Registarski brojevi <i>Serial numbers</i>	Napomene <i>Notes</i>
Airspeed Envoy	2 – 1943.	2001, 2002	
AERO 2	1 – 1942.	?	Prototip iz Kraljevine Jugoslavije. <i>Prototype from the Kingdom of Yugoslavia.</i>
Amiot 143 M	1 – 1941.	1701	
A.V.I.A. FL 3	10 – 1943.	8001 – 8010	Otvorena pilotska kabina. <i>Open cockpit.</i>
A.V.I.A. FL 3	10 – 1943.	8101 – 8110	Zatvorena pilotska kabina. <i>Enclosed cockpit</i>
Avia BH-33 E	7 – 1941.	3301 – 3307	
Avia-Fokker F VII/3m	6 – 1942.	1901 – 1906	Dva primjerka inačice F VIIa i četiri primjerka F VIIb. <i>2 aircraft of the F VIIa version and 4 F VIIb aircraft.</i>
Avia-Fokker F IX	1 – 1942.	1952	
Avia-Fokker F. 18	1 – 1942.	1951	
Avia-Fokker F. 39	1 – 1941.	1801	Oboren 20. kolovoza 1943. <i>Shot down on 20th August 1943.</i>
Be-51 Beta Minor	25 – 1943.	6401 – 6425	
Breguet XIX	30 – 1941.	4501 – 4530	Motor Jupiter <i>Jupiter engine.</i>
Breguet XIX/7	5 – 1941.	4601 – 4605	Motor Hispano Suiza od 650 KS. <i>Hispano Suiza (650 HP) engine.</i>
Breguet XIX	5 – 1941.	4901 – 4905	Motor Lorreine od 450 KS. <i>Lorreine (450 HP) engine.</i>
Breguet XIX/8	10 – 1941.	4701 – 4710	Motor Wright Cyclone GR-1820-F 56 od 680-780 KS. <i>Wright Cyclone engine GR-1820-F 56 (from 680.to 780 HP)</i>
B. Blenheim Mk I	8 – 1941.	1501 – 1508	
Bü 131 Jungmann	46 – 1941./43.	7501 – 7546	Primjerak s reg. br. 7511 nosio je u Kraljevini Jugoslaviji broj 910. <i>The aircraft with the serial number 7511 carried the numer 910 in the Kingdom of Yugoslavia.</i>
Bü 133 Jungmeister	10 – 1941.	7701 – 7710	
Bü 181 Bestmann	22 – 1944.	7401 – 7422	

CANT Z-1007 bis	3-6 – 1944.	?	
Caproni Ca.310	6 – 1941./42.	1001-1006	
Caproni Ca.310 bis	1 – 1942.	1101	
Caproni Ca.311 M	14 – 1942.	1201-1214	
Caproni Ca 313 G	1 – 1944.		
Caproni Ca.314	1 – 1943./44.	1301	
D.H.80 Puss Moth	2 – 1943.	5551, 5552	
Dornier Do Y	1 – 1941./42.	?	
Dornier Do 17 E	30 – 1943.	0301-0330	
Dornier Do 17 Ka-2	11 – 1942.	0101 – 0111	Najmanje 11 komada. <i>At least 11 aircraft</i>
Dornier Do 17 Z-2	12 – 1943.	0401-0412	0401 oboren 30. ožujka 1945. u okolici Perušića od strane savezničkih lovaca. <i>0401 was gunned down by Allied fighters on 30th March 1945 near Perušić.</i>
Fiat Br 20	6 – 1944.	?	
Fiat G.50 bis	9 – 1942.	3501-3509	
Fiat G.50 B	1 – 1942.	3510	Dvosjedna inačica <i>Two-seater version</i>
Fiesler Fi 156 C i B	11 – 1941.	4101..?..4111, 4151, 4152	4151 i 4152 su sanitetske inačice. <i>4151 and 4152-medevac versions.</i>
Fiesler Fi 167 A-0	8-12 – 1944.	4801-4812	
Fizir FN	20 – 1941.	7001-7020	
Fizir FN Ruler	5 – 1941.	7010-7105	
Fizir FP. 2	23 – 1941.	6801-6823	
Hawker Fury Mk II	1 – 1942.	?	
Hirtenberg-Hopfner WN-15	1 – 1943.	2101	
Ikarus IK-2	4 – 1941.	2901-2904	
Ikarus MM-2	1 – 1942.	6301	
Junkers W.34	3 – 1943.	?	Vjerojatno i više primjeraka. <i>Probably several aircraft.</i>
Macchi MC.202	? – 1944.	?	Jedan primjerak iz Serije XII,MM91010. <i>One aircraft from Series XII,MM91010.</i>
Messerschmitt Bf 109 G-6	? – 1945.		
Messerschmitt Bf 109 G-10	? – 1945.	crni "4",..... <i>black"4",.....</i>	
Messerschmitt Bf 109 G-14	? – 1945.	crni "10",..... <i>black"10",.....</i>	
Messerschmitt Bf 110 G-2	1 – 1945.	?	Nepotvrđeno dva primjerka. <i>Two unconfirmed aircraft.</i>

Morane Saulnier M.S. 406 C-1	36-38 - 1944.	2301 - 2336/38	2308,2323 i 2332 zarobili su ih partizani na Zalužanima u rujnu 1944. <i>2308,2323 and 2332 were captured by the Partisans at Zalužani in September 1944 .</i>
Potez XXV A2	42 - 1941.	5001 - 5042	
Rogožarski P.V.T.	15 - 1941.	6601 - 6615	
Rogožarski R-100	11 - 1941.	6501 - 6511	
Rogožarski R-313	1 - 1942.	?	Prototip iz Kraljevine Jugoslavije, nepotvrđen podatak. <i>Prototype from the Kingdom of Yugoslavia.Unconfirmed data.</i>
Rogožarski SIM X	1 - 1941.	7301	Nepotvrđeno, drugi primjerak s brojem 7302. <i>Unconfirmed-another aircraft with the number 7302 .</i>
Rogožarski SIM XI	1 - 1941.	7351	
RWD XIII	1 - 1942.	5501	Proizveden u Rogožarskom po licenci. Reg. broj nepotvrđen.Postoje naznake da su korištena 2-3 primjerka. <i>Manufactured at Rogožarski under licence. Serial number unconfirmed. There are indications that 2-3 aircraft were used.</i>
Saiman 200	25 - 1943.	6301 - 6325	
Saiman 202	2 - 1943.	6351, 6352	
Savoia Marchetti S.79	1 - 1941.	0701	Prema poljskim izvorima korišten je i drugi primjerak s brojem 3712. <i>According to Polish sources a second aircraft with the number 3712 was also used.</i>
Modly J.M.8	1 - 1944.		Prototip proizveden u Hrvatskoj. <i>Prototype manufactured in Croatia.</i>
Vrabac	? - 1941./42.		Jedrilica proizvedena u Hrvatskoj. <i>Glider manufactured in Croatia.</i>
Zögling 35	? - 1941./42.		jedrilica <i>Glider</i>
Sg 38			jedrilica <i>Glider</i>
Salamander	? - 1941./42.		jedrilica <i>Glider</i>
MK-2	? - 1941./42.		Jedrilica konstruktora Stanka Obada. Jedan primjerak, moguće i više. <i>Glider constructed by Stanko Obad. One aircraft, possibly more.</i>
Komar bis	? - 1941./42.		
Grunau Baby	? - 1941./42.		Jedrilica, korišteno 2-3 primjerka. <i>Glider,2-3 aircraft, possibly more.</i>
PWS 101	1 - 1942./43.		Jedrilica proizvedena u Hrvatskoj. Uništena u napadu partizana 29. svibnja 1943. na Svetu Nedelju. <i>Glider manufactured in Croatia. Destroyed in the Partisan attack of 29th May 1943 on Sveta Nedelja.</i>

Hrvatska zrakoplovna legija

U prvom dijelu knjige ukratko su spomenute hrvatske legionarske postrojbe, a u nastavku se detaljnije opisuje nastanak, ratni put i glavni akteri tog dijela zrakoplovstva. Nakon Poglavnikove naredbe o osnivanju Legije, general V. Kren imenovao je zapovjednikom Legije zrakoplovstva NDH svog zamjenika, pukovnika Ivana Mraka. Legija je dobila službeni naziv 4. zrakoplovna pukovnija, a sastojala se od 4. zrakoplovne skupine (lovci) i 5. zrakoplovne skupine (bombarderi). Zapovjednik lovačke skupine postao je pukovnik Franjo Džal, a ona je, osim njega, imala 202 pripadnika. Bojnik Vjekoslav Vičević imenovan je zapovjednikom bombarderske skupine koja je, osim njega, imala 154 pripadnika od visokih časnika do domobrana.

Nakon što su 15. srpnja 1941. svečano ispraćeni iz Zagreba, pripadnici 4. zrakoplovne skupine krenuli su prema Fürthu, a 5. zrakoplovne skupine prema Greiswaldenu u Njemačkoj, gdje je za njih organizirana izobrazba.

4. zrakoplovna lovačka skupina

Nakon dolaska u Fürth 4. zrakoplovna lovačka skupina uključena je u Jagdfliegerschule 4. (lovačka pilotska škola 4). Tehničko osoblje školovalo se u Herzogenaurachu (Bavarska), a mehaničari su bili zajedno s pilotima u Fürthu. Letna izobrazba obavljala se od 19. srpnja 1941. na modernim školskim zrakoplovima Bücker Bü 133 Jungmeister, Arado Ar 96 B i starijoj inačici lovačkog zrakoplova Bf 109 D. Tijekom izobrazbe prilikom sudara u zraku poginuo je pilot lovac zrakoplovni natporučnik Ivan Rubčić. Pred sam kraj izobrazbe osnivala su se dva jata – 10. i 11. Satnik Vladimir Ferenčina imenovan je zapovjednikom 10. jata, a satnik Zlatko Stipčić 11. jata. Dio pilota i osoblja 10. jata 28. rujna 1941. preko Krakova krenuo je za Poltavu u Ukrajini. Dolaskom na odredište 6. listopada, uključeni su u sastav postrojbe III/JG 52. Nakon pristizanja prvih pet od 11 njima namijenjenih zrakoplova Bf 109 E, 9. listopada krenuli su na borbene zadaće. Toga dana, prilikom zaštite uzletišta, iz pravca Ahtijevka-Krasnograda napadnut je ruski zrakoplov R-10. Oborilo ga je njemački poručnik Baumgarten koji je hrvatskim pilotima pridodan kao časnik za vezu. Od 11. do 25. studenoga izvršavali su se zadaci zaštite uzletišta i praćenja njemačkih zrakoplova na sektorima Kolomak – Volki – Bogoluhovo – Ahtijevka, Volki – Krasnograd,

The Croatian Air Force Legion

In the first part of this book, Croatian Legionary formations were briefly mentioned. We continue now with a detailed description of the formation, war service, and main protagonists of this part of the Air Force. Following the *Poglavnik's* order regarding the establishment of the Legion, General V. Kren appointed his deputy, Colonel Ivan Mrak, as Commander of the Croatian Air Force Legion. The Legion's official name was the 4th Air Force Regiment, and it consisted of the 4th Air Force Group (fighters) and the 5th Air Force Group (bombers). Colonel Franjo Džal became the Commander of the Fighter Group, and besides him, it had 202 members. Major Vjekoslav Vičević was appointed Commander of the Bomber Group, which, besides him, had 154 members, from high-ranking officers, to members of the Home Guard.

After they had been ceremoniously seen off from Zagreb on 15th July 1941, members of the 4th Air Force Group set off towards Fürth while the 5th Air Force Group headed towards Greiswalden, in Germany, where training was organised for them.

The 4th Air Force Fighter Group

Upon arriving at Fürth, the group was assigned to the Jagdfliegerschule 4 (Fighter Pilot School No.4). The technical personnel were trained at Herzogenaurach (Bavaria), while the mechanics remained in Fürth, together with the pilots. Flight instruction was conducted from 19th July 1941, on modern training aircraft: Bücker Bü 133 Jungmeisters, Arado Ar 96 Bs, and the older version of the Bf 109 D fighter aircraft. In the course of the training, fighter pilot Flight Lieutenant Ivan Rubčić was killed in a mid-air crash. Just before training ended, two squadrons were formed: the 10th and the 11th. Captain Vladimir Ferenčina was appointed Commander of the 10th Squadron, and Captain Zlatko Stipčić, Commander of the 11th. On 28th September, some of the pilots and personnel of the 10th Squadron set off for Poltava, in the Ukraine, via Cracow. Upon arriving at their destination on 6th October, they were included in formation III/JG 52. After the first five Bf 109 E aircraft, of the eleven that were due for them, arrived on 9th October, they went into

Ahtijevka – Harkov, Harkov – Lozojeva – Isjuh i Grajvor – Harkov. Postrojba je ubrzo iz Kremenčuga premještena na obalu Azovskog mora pokraj Taganroga, gdje će ostati do 1. prosinca 1941.

Prvu pobjedu jata ostvario je njezin zapovjednik V. Ferenčina 2. studenoga, kada je sjeverno od Rostova srušio jedan ruski zrakoplov. Potpukovnik F. Džal 9. studenoga također je oborio jedan ruski zrakoplov. Poručnik Baumgarten 16. studenoga rušio je drugi ruski zrakoplov, ali je četiri dana poslije poginuo pri sudaru u zraku s protivničkim lovcem. Krajem studenoga i časnički namjesnik Cvitan Galić postigao je svoju prvu pobjedu, srušivši lovca I-16. Prvi gubitak jato je doživjelo početkom listopada 1941., kada je zbog greške u pilotiranju stradao natporučnik Ivan Karner kod Lemberga (Bf 109 E-7, Werke numer 1431). Od 1. prosinca 1941. skupina je smještena na uzletištu Mariopul. Polovinom mjeseca siječnja skupina je raspolagala sa samo sedam od 11 dobivenih letjelica Bf 109 E, te je na traženje njemačkog Ministarstva zrakoplovstva raspuštena, a od nje se ustrojilo 10. ojačano jato. Tim je jatom zapovijedao F. Džal, kojega je određeno vrijeme mijenjao M. Čulinović. Od 15. siječnja 1942. jato je neko vrijeme ponovno smješteno pokraj Taganroga, odakle



118. Messerschmitt Bf 109 E-3. Zeleni "15", Rusija 1942

118. Messerschmitt Bf 109 E-3, green "15", Russia, 1942.

combat action. On that day, while protecting the airfield from the direction of Ahtijevka-Krasnograd, a Russian R-10 aircraft was attacked. German 2nd Lieutenant Baumgarten, who had joined the Croatian pilots as a liaison officer, shot it down. From 11th to 25th November, they performed airfield protection missions and monitoring of German aircraft in the sectors of Kolomak-Volki-Bogoluholovo-Ahtijevka, Volki-Krasnograd, Ahtijevka-Harkov, Harkov-Lozojeva-Isjuh, and Grajvor-Harkov. The formation was soon transferred from Kremenčug to the Azov seacoast, near Taganrog, where it would remain until 1st December 1941.

The first victory of the squadron was achieved by its Commander, V. Ferenčina, on 2nd November, when he shot down a Russian aircraft north of Rostov. Lieutenant-Colonel F. Džal also shot down a Russian aircraft, on 9th November. On 16th November, 2nd Lieutenant Baumgarten shot down his second Russian aircraft, but he was killed four days later in a mid-air crash with an enemy fighter. Towards the end of November, Lieutenant Cvitan Galić achieved his first victory by shooting down an I-16 fighter. The squadron experienced its first loss at the beginning of October 1941, when owing to pilot error, Lieutenant Ivan Karner was killed at Lemberg (Bf 109 E-7, Werke Numer 1431). From 1st December 1941, the group was stationed at Mariopul airfield. Around mid-January, the group had at its disposal only seven of the eleven Bf 109 E aircraft received, and was disbanded at the request of the German Air Force Ministry. The 10th Squadron (Reinforced) was formed from it. This squadron was under the command of F. Džal who was replaced temporarily by M. Čulinović. From 15th January 1942, the squadron was once again based near Taganrog, for a time, from where it monitored German bombers, attacked the Mariopul-Stalino railway, as well as vehicle convoys around Pokorovskoja, Matvejevo, Kurgana, Taganrog, Goldajevka, Martinovka, Jeisk, and Uspenskoja. By the end of January, they had shot down a total of twenty-three Russian aircraft. As spring and milder weather approached, flying conditions became more favourable and the intensity of combat flights increased. Flights aimed at protecting the actual airfield were frequent. Until 7th April 1942, the pilots flew in Bf 109 aircraft, with the following numbers (Werke Numer): 235, 950, 1285, 1438, 1979, 3498, 3864, 5365, 6059, 6087, 6354, 6393, and 7672. On 16th April 1942, following an order by the Air Force Command, the 10th Squadron (Reinforced) was reformed as the 4th Air Force Group, with the 10th and 11th Squadrons. Major M. Čulinović was appointed Commander of the 10th Squadron, and V. Ferenčina, Commander of the 11th Squadron. At the end of April, the squadron achieved its thirty-sixth victory, during fierce fighting around the Kerč Peninsula. At the beginning of May, the official name of the formation became Jagdgruppe Džal (Fighter Group Džal), and it was transferred to the airfield

prati njemačke bombardere, napada željezničku prugu Mariopol – Stalino te kolone vozila oko Pokorovskoje, Matvejeva, Kurgane, Taganroga, Goldajevke, Martinovke, Jelska i Uspenskoje. Do kraja siječnja oborili su ukupno 23 ruska zrakoplova. Približavanjem proljeća i ljepšeg vremena, uvjeti za letenje postaju povoljniji te se pojačava intenzitet borbenih letova. Česti su letovi kojima je cilj zaštita samog uzletišta. Do 7. travnja 1942. piloti su letjeli na zrakoplovima Bf 109, sljedećih brojeva (Werke Numer): 235, 950, 1285, 1438, 1979, 3498, 3864, 5365, 6059, 6087, 6354, 6393 i 7672. Šesnaestog travnja 1942. naredbom Zapovjedništva Zračnih snaga 10. ojačano jato ponovo je formirano kao 4. zrakoplovna skupina s 10. i 11. jatom. Zapovjednikom 10. jata imenovan je bojnik M. Čulinović, a 11. jata bojnik V. Ferenčina. Krajem travnja jato je postiglo 36. pobjedu tijekom jakih borbi oko poluotoka Kerč. Početkom svibnja postrojba dobiva službeni naziv "Lovačka skupina Džal" (Jagdgruppe Džal), te se premješta na uzletišta u blizini Sevastopolja koji su pokušavale zauzeti njemačke snage. Zbog suženog prostora na kojem su se vodile borbe, nije bilo mnogo prilika za zračne borbe lovaca pa je skupina vraćena u Mariopol. Piloti su izražavali nezadovoljstvo što su morali letjeti na pomalo zastarjeloj verziji tipa Bf 109 E, dok su njemački piloti u to doba već letjeli na mnogo boljem zrakoplovu Bf 109 G.

Poneki od zrakoplova koje su koristili hrvatski piloti u Sovjetski Savez stigli su čak iz Afrike. Zapovjednik Džal zbog te je činjenice službeno prosvjedovao preko hrvatskog diplomatskog predstavnika u Berlinu Marijana Dolanskoga kod njemačkih vlasti. Bez obzira na lošije zrakoplove, skupina je do 21. lipnja izvršila 1 000 borbenih letova s više od 50 ostvarenih pobjeda. Uloženi prosvjedi urodili su plodom, jer je dio pilota upućen na doškolavanje za letove na tipu Bf 109 G-2. Dva puta, tijekom lipnja i sredinom srpnja, stiglo je sedam primjeraka tih zrakoplova u Mariopol i Majkop. Međutim, i dalje su se koristili i zrakoplovi Bf 109 E. U srpnju su pojačane zračne borbe pa se katkad na dan polijetalo 30-ak puta. Često su to bile lovačke pratnje drugih zrakoplova iz njemačkih postrojba ili zrakoplova za vezu Bf 108 Taifun, koji je korišten u sastavu jata. Dana 26. srpnja deset zrakoplova izvršilo je prelet iz Majkopa u Taganrog. Devet ih je bilo verzije G, a jedan E. Sljedećeg dana, Džalov zrakoplov koji je nosio broj 1 na trupu, pogođen je u motor i prinudno se spustio.

U srpnju je više pilota postiglo pobjede (Čulinović, Ferenčina, Džal, Galić). Za pomoćne zadatke jato se koristilo dvama Bf 108, koji su nosili registarske oznake BD-JG i VK-WK. Koristi se i Klemm 35, registarske oznake CI-SF. Središnja radionica i distribucijski centar bili su u Nikolajevu, te je bilo dosta preleta s uzletišta do Nikolajeva. U kolovozu se nastavlja niz pobjeda, ali je bilo i gubitaka. Posljednjeg

near Sevastopol, which the German forces were trying to capture. Owing to a narrow area in which the fighting took place, the fighters did not get many opportunities for aerial combat, and the group was returned to Mariopol. The pilots expressed their discontent at having to fly a somewhat obsolete version of the Bf 109 E type, while at the same time, German pilots were already flying the superior Bf 109 G aircraft.

Some of the aircraft that Croatian pilots used, reached the Russian Front via Africa. Because of this, Commander Džal submitted an official protest to the responsible German authority, through the Croatian diplomatic representative in Berlin, Marijan Dolanski. Regardless of the inferior aircraft, by 21st June the group had performed 1,000 combat missions with over fifty victories. The protest was successful, and some of the pilots were sent to be re-trained for flying the Bf 109 G-2 type. Twice, during June and around mid-July, seven of these aircraft arrived at Mariopol and Majkop. However, Bf 109 E aircraft were still being used too. In July, aerial combat intensified and they sometimes performed almost thirty take-offs per day. The fighters would often follow the other aircraft from the German formations, or the Bf 108 Taifun liaison aircraft, that was used by the squadron. On 26th July, ten aircraft flew over from Majkop to Taganrog (nine of them were the G version, and one was an E). The following day, the engine of Džal's aircraft, that bore a number 1 on the fuselage, was hit and crash-landed.

In July, many pilots achieved victories (Čulinović, Ferenčina, Džal, and Galić). For auxiliary missions, the squadron used two Bf 108s that bore the serial numbers BD-JG and VK-WK. A Klemm 35, serial number CI-SF, was also used. The main workshop and distribution centre was in Nikolajev and there were many flights from the airfield to Nikolajev. In August, the series of victories continued, but there were losses too. On the last day of August, Galić achieved his twentieth victory, over an I-16 fighter. In that month, they often served as fighter escort for German Bf 110s, Ju 87s, Ju 52s, and FW 189s. Apart from Galić, victories were achieved by S. Boškić, T. Kauzlarić, J. Starc, Ij. Bencetić, J. Hellebrant, and S. Martinašević. The downed aircraft were Mig-3, LaGG-1, I-153, I-16, and IL-2 fighters, and DB 3 attack bombers. On 12th September 1941, the squadron was reinforced by five German pilots, with their Bf 109 G-2 aircraft, from II/JG 52. They flew there for a brief period, and then returned to their formation.

On 22nd September, the entire squadron flew over to the airfield in Majkop. The number of victories increased further. Aerial encounters with enemy fighters were frequent when escorting Ju 87 and Ju 88 aircraft. In July, 137 victories were

dana kolovoza Galić postiže svoju dvadesetu pobjedu nad lovcem I-16. U tome mjesecu često su bili i lovačka pratnja njemačkim zrakoplovima Bf 110, Ju 87, Ju 52 i FW 189. Osim Galića, pobjede postižu: S. Boškić, T. Kauzlarić, J. Starc, Lj. Bencetić, J. Hellebrant i S. Martinašević. Rušeni su lovci Mig-3, LaGG-1, I-153, I-16, te bombarderi i jurišnici DB 3 i IL-2. U sastav Jata kao pomoć 12. rujna 1941. stiglo je pet njemačkih pilota sa svojim zrakoplovima Bf 109 G-2 iz II/JG 52. Tu su letjeli kraće vrijeme, nakon čega su se vratili u svoju postrojbu.

Dana 22. rujna cijelo Jato prelijeće na uzletište u Majkopu. Broj pobjeda se i dalje povećava. Prilikom pratnji letjelica Ju 87 i Ju 88, česti su zračni okršaji s protivničkim lovcima. U srpnju je postignuto 137 pobjeda. Letjelo se na zrakoplovima koji su na trupu nosili brojeve 1, 3, 4, 5, 6, 7, 8, 9, 10, 11 i još nekoliko neidentificiranih (ukupno 15 primjeraka). U sastav Jata tijekom listopada pristižu mladi piloti s izobrazbe koju su imali u Prenzlau. U to su vrijeme bili u sastavu postrojbe 15/JG 52 (15 Staffel Jagdgeschwadera 52). Na odmor u Hrvatsku vraćeni su 23. prosinca 1942., kada im je u Zagrebu priređen svečan doček. Do tada je skupina izvršila 3 300 bor-



119. Messerschmitt Bf 109 G-6, Crni "C1". U kabini zrakoplova pilot satnik Mato Dukovac. Obratiti pozornost na nedovršeni znak Legije.

119. Messerschmitt Bf 109 G-6, black "C1". Pilot Mato Dukovac is in the cockpit. Notice the unfinished Legionary markings.

reached. They flew aircraft with the following numbers on the fuselage: 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, and several more unidentified ones (fifteen of them in all). During October, young pilots that had been trained with the 15/JG 52 (15th Staffel Jagdgeschwader 52) at Prenzlau, arrived. They returned for R&R in Croatia on 23rd December 1942, when a ceremonious welcome was prepared for them at Zagreb. Up till then, the squadron had performed 3,300 combat flights, and the shooting down of 164 enemy aircraft was acknowledged. Cvitan Galić achieved the most victories (in 255 flights he shot down 24 aircraft, while an additional 7 were not acknowledged since he had no witnesses). He was promoted to the rank of Lieutenant. Six of the group's pilots were killed or went missing. From February 1943, they were at the front-line again, but at the beginning were not successful. In a short period of time, they lost four aircraft and two pilots. During the great Soviet offensive aimed at liberating the Taman Peninsula, the Croatian Legionnaires were situated at Kerč airfield No. IV (Crimea). From mid-April onwards, in a series of aerial battles above Kuban, in forty-six days, they carried out 349 combat flights and shot down twenty-nine aircraft, among them British Spitfires and American P-39 Airacobras, that were also flown by Russian pilots. Lieutenant Mato Dukovac particularly excelled and his number of victories places him right behind Galić. By that time Galić had achieved thirty-four victories (until 15th May). In May and June, several pilots defected to the opposing side (Starc, Vujić, Cvikić), which is why the Germans prohibited flying, and withdrew the Croatian pilots from combat. General Kren replaced Commander Džal and severe restrictions were placed on the others. The new Air Force Commander, Colonel A. Rogulja returned Džal to the same duty in September that year. A group of young fighter pilots that had completed their training at Zagreb (AB-123), and at the Italian Pilot School at Mostar, went on to receive further training in Germany on the JG 104. The training was completed on 10th September, and after a brief stay in Croatia, they left for Nikolajevo, on 15th October. Upon arriving at their destination, they practised aerial combat on models Bf 109 G-2 and G-4. They took off for combat missions on 26th October, from Bagerovo airfield, near Kerč on the Crimea. They flew on versions G-4 and G-6. At that time, eight aircraft were available. In the fierce fighting and harsh conditions, five pilots died, and many were wounded, or became sick.

At the end of February 1944, M. Dukovac achieved his thirty-sixth victory, and by mid-March, his fortieth. C. Galić ended with thirty-eight acknowledged victories. They returned again to Croatia on 22nd March 1944. Up till then, they had achieved almost 300 victories. Six pilots that arrived on the battlefield in the meantime, continued to fly within the III/JG 52 formation. They had been trained in Germany (JG

benih letova, pri čemu im je priznato rušenje 164 protivnička zrakoplova. Najviše pobjeda ostvario je Cvitan Galić (u 255 letova 24 rušenja a dodatnih sedam pobjeda mu nije priznato jer nije imao svjedoke). Promaknut je u čin poručnika. Šest pilota iz skupine je stradalo ili nestalo. Od veljače 1943. ponovno su na bojišnici, ali početak nije bio uspješan. U kratkom razdoblju izgubili su četiri zrakoplova i dvojicu pilota. Tijekom velike sovjetske ofenzive, usmjerene na oslobađanje Tamanskog poluotoka, hrvatski legionari smješteni su na uzletištu Kerč-IV (Krim). Od sredine travnja u nizu zračnih borbi iznad Kubana u 46 dana izvršili su 349 borbenih letova, te srušili 29 zrakoplova, a između ostalih i britanske Spitfiree i američke P-39 Airacobre, na kojima su također letjeli ruski piloti. Osobito se istaknuo natporučnik Mato Dukovac, koji je po broju pobjeda bio odmah iza Galića. U to vrijeme Galić je postigao 34 pobjede (do 15. svibnja). Nekoliko je pilota u svibnju i lipnju prebjeglo na protivničku stranu (Starc, Vujić, Cvikić), zbog čega su Nijemci zabranili letenje i povukli hrvatske pilote s bojišta. General Kren je smijenio zapovjednika Džala, a prema ostalima poduzeo oštre sankcije. Na istu dužnost vratio ga je novi zapovjednik zrakoplovstva, pukovnik A. Rogulja u rujnu iste godine. Skupina mladih pilota lovaca, koja je izobrazbu završila u Zagrebu (AB-123) i talijanskoj pilotskoj školi u Mostaru, odlazi na daljnju izobrazbu u Njemačku, i to u JG 104. Izobrazba je završena 10. rujna, a nakon kratkog boravka u Hrvatskoj, odlaze 15. listopada prema Nikolajevu. Po dolasku na odredište, uvježbavaju zračne borbe na modelima Bf 109 G-2 i G-4. Na borbene letove polijeću od 26. listopada s uzletišta Bagerovo u blizini Kerča na Krimu. Letjeli su na inačicama G-4 i G-6. U to su vrijeme raspolagali s osam zrakoplova. U teškim borbama i lošim životnim uvjetima pet pilota je smrtno stradalo, a bilo je dosta ranjavanja i bolesti.

M. Dukovac krajem veljače 1944. postiže svoju 36. pobjedu, a do sredine ožujka i 40. C. Galić se zaustavio na broju od 38 priznatih pobjeda. U Hrvatsku se ponovno vraćaju 22. ožujka 1944. Do tada su postigli gotovo 300 pobjeda. Šest je pilota, koji su u međuvremenu stigli na bojište, nastavilo letjeti u sastavu postrojbe III/JG 52. Školovanje su završili u Njemačkoj (JG 104) i Francuskoj (II/Erg.JG 1). Sredinom lipnja premješteni su na uzletišta Zilistea u Rumunjskoj, kamo su stigli i piloti s odmora iz Zagreba. Očekivao se dolazak modernijih letjelica Bf 109 G-10 i G-14. Naredbom zapovjednika zrakoplovstva 21. srpnja 1944., od dotadašnje Legije osnovana je Hrvatska zrakoplovna izobrazbena skupina. U njezin su sastav uključeni piloti iz postrojbe 15/JG 52 i novog borbenog jata. Piloti su bez zrakoplova smješteni u Slovačkoj (Pištjan – Bratislava), gdje je stiglo i jedno jato iz Zagreba. Cjelokupna skupina početkom kolovoza odlazi u istočnu Prusiju, a iz sastava 4. Flieger Divisiona prelaze u 1. Flieger Division Luftflotte VI. Na uzletištu kod Eichwalda jedno borbeno jato opremljeno je zrakoplovom Ju 87, namijenjenim protuoklopnoj borbi u specija-

104) and France (II/Erg.JG 1). Around mid-June, they were transferred to Zilistea airfield, in Romania, where the pilots that had been resting in Zagreb also went. The arrival of more modern Bf 109 G-10 and G-14 aircraft was expected. Following an order from the Air Force Commander, of 21st July 1944, the Croatian Educational Group was established from the former Legion. It included pilots from the 15/JG 52 formation, and a new fighter squadron. The pilots were stationed in Slovakia (Pištjan-Bratislava), without their aircraft, and were joined by a squadron from Zagreb. At the beginning of August the entire formation left for Eastern Prussia, and moved from the 4th Flieger Division, to the 1st Flieger Division Luftflotte VI. At the airfield near Eichwald, one fighter squadron was equipped with a Ju 87-type, intended for anti-tank combat in the specialised Schlachtgeschwader SG 9 formation. There is a possibility that they performed combat missions too, but if this is so, it was only for a short while. The 15/JG 52 formation received about ten Bf 109 G-10s and G-14s, with which practise flights were performed during September. The squadron flew from Eichwald to Labiau (Lithuania). M. Dukovac and V. Špoljar defected to the Soviet side on 20th September, which is why flying was prohibited for Croatian pilots. The squadron was reassembled at Eichwald airfield, and Đuro Švarc became the Fighter Squadron Commander. On 1st November 1944, the aircraft were taken away from the group and the personnel were sent to Poznań. In December, they underwent infantry training at Środ. Towards the end of March 1945, after infantry battles around Ściecin, the survivors returned to Zagreb.

During their battles outside Croatia, in over 5,000 flights, Legionnaires shot down more than 300 enemy aircraft. Ten or so of the pilots achieved ten or more victories, thereby earning the title of ace.

liziranoj postrojbi Schlachtgeswader SG 9. Postoji mogućnost da su izvršavali i borbene zadatke, ali ako je to točno, vrlo kratko. Postrojba 15/JG 52 primila je desetak Bf 109 G-10 i G-14, s kojima je u rujnu izvršavala vježbovne letove. Jato je iz Eichwalda preletjelo u Labiau (Litva). M. Dukovac i V. Špoljar 20. rujna prebjegli su na sovjetsku stranu, zbog čega je hrvatskim pilotima zabranjeno letenje. Ponovno okupljanje skupine izvršeno je na uzletištu Eichwald, a zapovjednik lovačkog jata postaje Đuro Švarc. Skupini su 1. studenoga 1944. oduzeti zrakoplovi, a osoblje odlazi u Poznanj. U prosincu su u mjestu Šroda na pješачkoj obuci. Krajem ožujka 1945., nakon pješачkih borbi u okolici Šćećina, preživjeli se vraćaju u Zagreb.

Tijekom borbi na ratištima izvan Hrvatske u više od 5 000 letova srušili su više od 300 protivničkih zrakoplova. Desetak pilota postiglo je deset ili više pobjeda, čime su zaslužili naziv AS.

Dosta pobjeda nije priznato zbog nedostatka svjedoka. Lista pilota s brojem pobjeda dana je kao poseban prilog.



120. 121. i 122. Messerschmitt Bf 109 E-4 sa zelenim brojem "2" i neuobičajenom maskirnom shemom
120, 121. and 122. Messerschmitt Bf 109 E-4, with a green number "2" and unusual camouflage pattern.



123. Bf 109 E-4, zeleni "15".

123. Bf 109 E-4, green "15"



125. i 126. Bf 109 E-7

125. and 126. A Bf 109 E-7



124. Bf 109 E-4

124. A Bf 109 E-4





127. Vertikalni stabilizator jednog Bf 109 E s 11 oznaka pobjeda

127. The rudder of a Bf 109 E, with eleven "kill" markings.



128. Bf 109 G-2 bez nacrtanog znaka Legije snimljen vjerojatno po dolasku na front u Nikolajevu gdje je bila središnja radionica za popravak i distribuciju zrakoplova na tom području.

128. A Bf 109 G-2 without Legionary markings, probably photographed upon arriving at the front, in Nikolajev. This town was the central workshop for repairing and distributing aircraft in this region.



129. Bf 109 G-2 (crni "1") sa standardnim žutim nosom. Pilot u kabini je pukovnik Franjo Džal.

129. Bf 109 G-2 (black "1") with the standard yellow nose. The pilot in the cockpit is Franjo Džal.



130. Bf 109 G-2 (crni "3") s pilotom satnikom Cvitanom Galićem

130. Bf 109 G-2 (black "3") with pilot Cvitan Galic.



131, 132. I 133. Bf 109 G-2 (crni "<<1") s potpuno nacrtanim znakom Legije. Riječ je o istom zrakoplovu sa snimke 129 na kojoj je postavljena dodatna oznaka "<<" te crno obojena unutrašnjost križa.

131, 132 and 133. Bf 109 G-2 (black "<<1") with complete Legionary markings. This is the same aircraft as shown in photograph 129, on which an additional marking "<<" was placed, as well as a black cross interior.



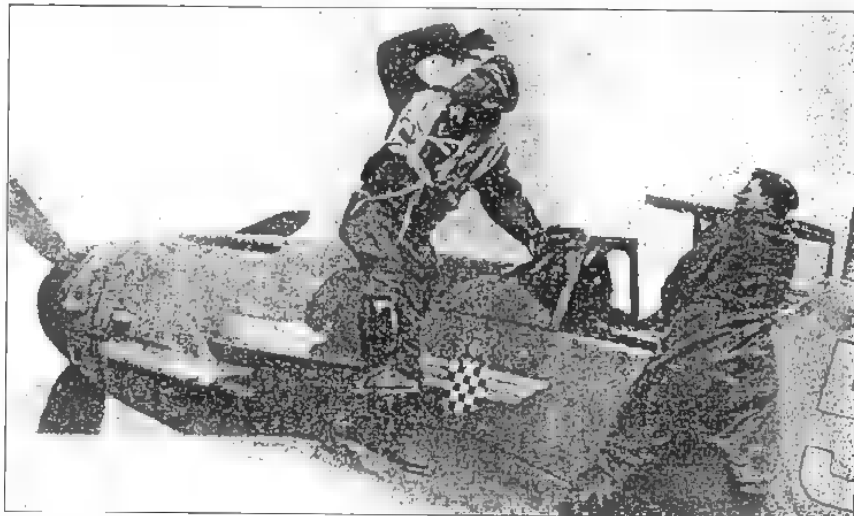
134. Bf 109 G-2 (crni "4"). Primjećuju se svijetlije površine na trupu oko njemačke oznake. Žuto je obojen samo donji dio nosa.

134. Bf 109 G-2 (black "4"). Notice the lighter areas on the fuselage, around the German markings. Only the lower part of the nose was coloured yellow.



135. Bf 109 G-2/R-6 (W. Nr. 13463, crni "8") s topovima od 20 mm. Na ovom zrakoplovu u kolovozu 1942. s uzletišta Armavir polijetao je pilot satnik Josip Helebrant.

135. Bf 109 G-2/R6 (Wnr. 13463 - black "8") with 20mm guns. Flight Captain Josip Hellebrant took off with this aircraft in August 1942, from Armavir airfield.



137. Bf 109 G-2 (žuti "5"). Može se primijetiti da su krila na znaku Legije nešto tamnija od bijelih polja državnog grba tj. srebrna.

137. Bf 109 G-2 (yellow "5"). Observe that the colour of the wings beneath the Legionary markings was somewhat darker than the white squares on the state coat-of-arms, i.e. silver.



136. Bf 109 G-2 (crni "7"). Žuto obojen cijeli nos, a traka oko trupa nalazi se do same njemačke oznake.

136. Bf 109 G-2 (black "7"). The nose was completely yellow and the band around the fuselage was right next to the German markings.



138. Bf 109 G-2 (žuti "4")

138. Bf 109 G-2 (yellow "4").



139. Bf 109 G-2 (crni "5"). Primjećuje se osam oznaka za postignute pobjede. Žuto obojen cijeli nos.
 139. Bf 109 G-2 (black "5"). eight markings, denoting "kills", can be seen. The entire nose was yellow.



140. Na ovom primjerku Bf 109 G-2 s jednobojnim spinnerom (RLM 71), pod krilima se primjećuju tvorničke oznake (CC-Z?). Znak legije još nije nacrtan.

140. On this Bf 109 G-2, with a plain spinner (RLM 71), the factory numbers (CC-Z?) can be discerned under the wings. The markings of the Legion had not been applied.



141. i 142. Bf 109 G-2 (crni "10"). Oznaka na trupu nema crnih površina, a ispred broja "10" nazire se, ispod maskirnih boja, ostatak ranije registracije. Slovo "R" svjetlije boje.
 141. and 142. Bf 109 G-2 (black "10"). The marking on the fuselage had no black surfaces, and in front of the number "10", the remains of a previous serial number - the letter "R", in a lighter colour, can be discerned under the camouflage colours. The remains of the old serial number - "C", can be discerned. The legs of the landing gear are a silver colour



143, 144. I 145. Još jedan primjerak Bf 109 G-2/R-6 (crni "11"). Znak Legije je nezavršen, bez obruba oko krila i crte tropleta. Oznaka na trupu nema crne površine, a dio trupa oko iste je tamnije boje nego osnovna maskirna shema. Žuta traka oko trupa smještena je uza samu oznaku. Nazire se ostatak stare registrarske oznake "C". Noge stalnog trapa su srebrne boje.

143, 144 and 145. Another Bf 109 G-2/R-6 (black "11"). The Legionary markings were incomplete, with no border around the wings, and the lines of the braided knotwork design. The markings on the fuselage had no black surface and the part of the fuselage around it, was somewhat darker than the basic camouflage. The yellow band around the fuselage was located right next to the markings.



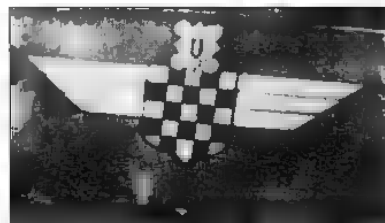
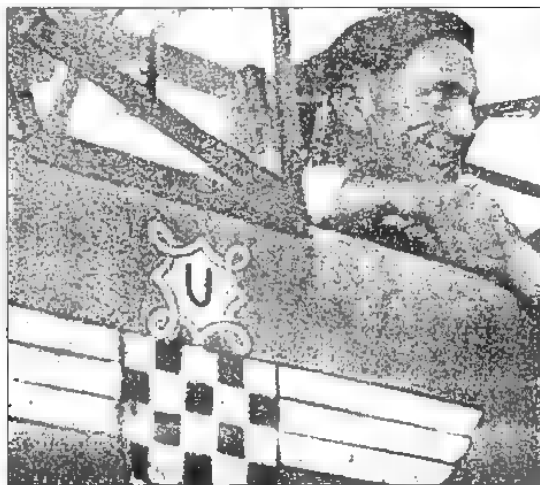
146. Bf 109 G-6, 1943. godina. Nedovršen znak Legije.

146. A Bf 109 G-6 in 1943. Incomplete Legionary markings.



147. i 148. Bf 109 G-2 (žuti "12"). Na prvoj fotografiji na lijevoj strani je general V. Kren u nadzoru 4. lovačke zrakoplovne skupine na Istočnoj bojišnici. Znak Legije nema obrub oko krila, a crte tropleta su nacrtane. Na dijelu trupa između broja "12" i njemačke oznake nalazi se tamna četvrtasta površina. Spinner je vjerojatno bijelo, crveno, crni s vertikalnom podjelom boja. Broj "12" je crno obrubljen.

147. and 148. Bf 109 G-2 (yellow "12"). In the first photograph from the left is General V. Kren, inspecting the 4th Fighter Air Force Fighter Group on the Eastern Front. The markings of the Legion did not have a border around the wings and the lines of the braided knotwork design had been drawn in. On the part of the fuselage between the number "12", and the German markings, there was a dark square surface. The spinner was probably white-red-black, with a vertical colour division. The number "2" had a black border.



149. Na ovom znaku Legije krila su tamnija nego bijela polja državnog grba. Srebrne su boje.

149. On these Legionary markings, the wings were darker than the white squares on the state coat-of-arms. They were a silver colour.

150. i 151. Na prikazanim primjercima znaka Legije na Bf 109 uočavaju se varijacije u položaju tropleta sa slovom "U". Na prvoj fotografiji troplet djelomično prelazi u dio oznake s državnim grbom, dok je na drugoj fotografiji smješten iznad grba. Oblik samog tropleta također se malo razlikuje.

150. and 151. In these examples of Legionary markings on the Bf 109, one can observe variations in the position of the braided knotwork design and the letter "U". In the first photograph the braided knotwork design partly crosses over onto the state coat-of-arms, while on other photographs, it is found above the coat-of-arms. The shape of the braided knotwork design also differs somewhat.





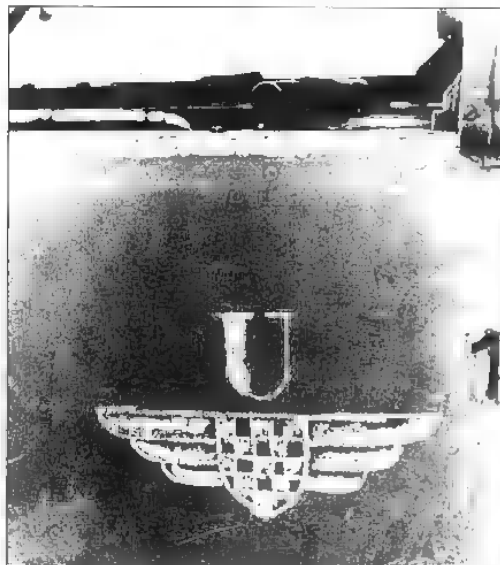
152. Bf 109 G-5 ili G-2 oštećen prilikom slijetanja. Spinner je potpuno bijel, a znak Legije je nedovršen.

152. A Bf 109 G-5, or G-6, that was damaged during landing. The spinner was completely white and the Legionary markings are incomplete.



153. Spinner ovog Bf 109 G-2 je trobojan s vertikalnom podjelom boja. Vrh je bijele boje, a ostale boje teško je s točnošću odrediti.

153. The spinner of this Bf 109 G-2 was tri-coloured, with a vertical division between the colours. The tip was white, but it is difficult to determine the other colours with certainty.



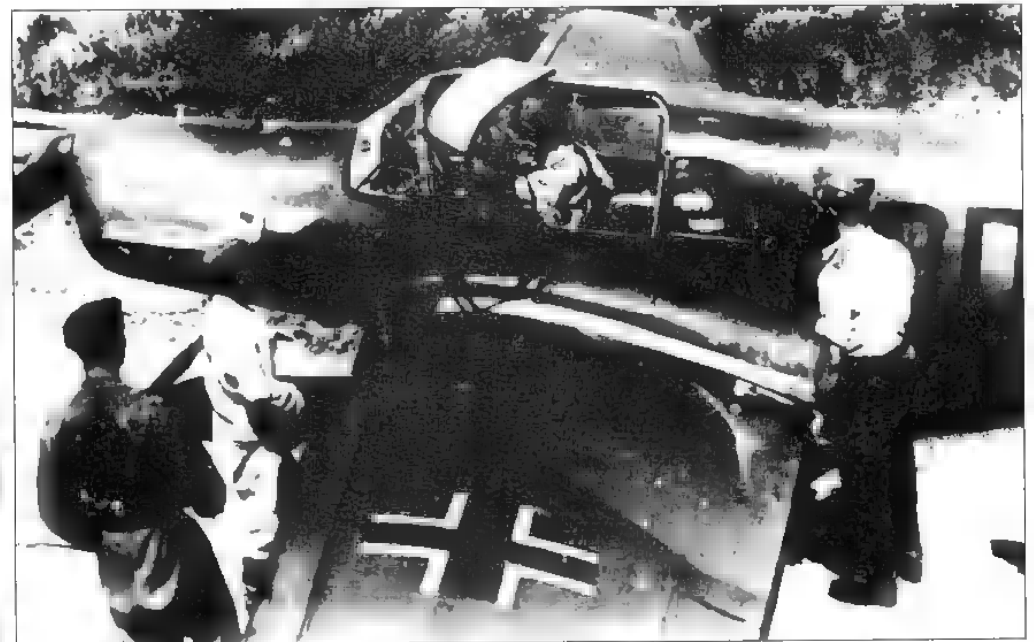
154. i 155. Improvizirane oznake Legije nacrtane kredom na Bf 109 E nepoznatog registrarskog broja.

154. and 155. Improvised Legionary markings had been drawn in chalk, on an unidentified Bf 109 E.



156. i 157. Messerschmitt Bf 109 G-6 (crni "< 1") na kojem je neko vrijeme letio satnik Mato Dukovac. Znak Legije nema obrub oko krila.

156. and 157. A Messerschmitt Bf 109 G-6 (black "< 1"), in which Mato Dukovac flew for a while. The Legionary markings had no border around the wings.



158. i 159. Jedan od dvaju korištenih primjeraka Messerschmitta Bf 108 Taifun (BD+JG)

158. and 159. One of two Messerschmitt Bf 108 Taifuns that were used (BD+JG).





160. Pilot Zdenko Avdić u Bf 109 G-6 sa žutim brojem "13". Znak Legije nije nacrtan.

160. Pilot Zdenko Avdić in a Bf 109 G-6, with a yellow number "13". The Legionary markings were not drawn in.



162. Bf 109 G-6 (bijeli "5"). Znak Legije potpuno je nacrtan, a na spinneru elise se nalazi bijela spirala. Primjećuje se da su skinuti poklopci podvozja (stajnog trapa).

162. A Bf 109 G-6 (white "5"). The Legionary markings were in complete, and there was a white spiral on the propeller spinner. It is noticeable that the covers of the landing gear had been removed.

163. Prikazani zrakoplov još uvijek ima tvornički registarski broj s kojim je određeno vrijeme letlo na borbene zadaće.

163. The aircraft shown still had the factory number with which it flew on missions for a while.



161. Bf 109 G-6 (crni "9"). Znak Legije nije završen, a ispod broja "9" nalazi se ostatak dijela ranije registarske oznake - "D".

161. A Bf 109 G-6 (black "9"). The Legionary markings were incomplete, and in front of the number "9", there were the remains of the previous serial number - "D".



ZRAKOPLOVI KORIŠTENI U HRVATSKOJ ZRAKOPLOVNOJ LEGIJI

AIRCRAFT USED IN THE CROATIAN FORCE LEGION

Tip zrakoplova <i>Aircraft type</i>	Količina – godina nabavke <i>Quantity – year of acquisition</i>	Registarski brojevi <i>Serijal numbers</i>	Napomene <i>Notes</i>
Focke Wulf FW 58	1-1943.		Džalov osobni zrakoplov za vezu. <i>Džal's personal aircraft for liaison duties.</i>
Junkers W.34	1-1943.	HK+DZ	Vjerojatno korišteno više primjeraka. <i>Probably several aircraft were used.</i>
Junkers Ju 52	1-1944.		
Junkers Ju 87	?-1944./45.		Vjerojatno u sastavu Hrvatske Izobrazbene skupine. <i>Probably as part of the Croatian Educational Group.</i>
Klemm 35	1-1942.	SF+CI	
Bf 108 Taifun	2-1942.	BD+JG, VK+WK	
Bf 109 E-3/4/7	?-1941.		
Bf 109 G-2/4/5/6	?-1942.		
Bf 109 G-10/14	?-1944./45.		U sastavu Hrvatske izobrazbene skupine. <i>Part of the Croatian Educational Group.</i>
Dornier Do 17 Z-2	?-1941./42.		

POPIS NAJUSPJEŠNIJIH PILOTA – LOVACA HRVATSKE LEGIJE

A LIST OF THE MOST SUCCESSFUL FIGHTER PILOTS OF THE CROATIAN LEGION

Čin <i>Rank</i>	Pilot <i>Pilot</i>	Broj pobjeda <i>Number of Confirmed "Kills"</i>
Satnik / <i>Captain</i>	Mato Dukovac	40
Satnik / <i>Captain</i>	Cvitan Galić	38
Natporučnik / <i>1st Lieutenant</i>	Dragutin Ivanić	18
Natporučnik / <i>1st Lieutenant</i>	Ivan Jergović	16
Stožerni narednik / <i>Warrant Officer II</i>	Josip Jelačić	16
Satnik / <i>Captain</i>	Ljudevit Bencetić	16
Poručnik / <i>2nd Lieutenant</i>	Stjepan Boškić	13
Pukovnik / <i>Colonel</i>	Franjo Džal	13
Satnik / <i>Captain</i>	Zlatko Stipčić	12
Satnik / <i>Captain</i>	Josip Helebrant	12
Poručnik / <i>2nd Lieutenant</i>	Živko Džal	12
Stožerni narednik / <i>Warrant Officer II</i>	Stjepan Martinašević	11
Poručnik / <i>2nd Lieutenant</i>	Eduard Martinko	10
Bojnik / <i>Major</i>	Vladimir Ferenčina	10
Stožerni narednik / <i>Warrant Officer II</i>	Tomislav Kauzlarić	10
Stožerni narednik / <i>Warrant Officer II</i>	Veco Miković	10
Zastavnik / <i>Ensign</i>	Zdenko Avdić	10
Bojnik / <i>Major</i>	Mato Čulinović	10

IZVADCI IZ DNEVNIKA LETENJA 4. ZRAKOPLOVNE SKUPINE

EXTRACTS FROM THE FLIGHT DIARIES OF THE 4th AIR FORCE GROUP

1942.			
Datum Date	Verzija zrakoplova Aircraft version Bf 109 (W.Nr.*) broj / number	Pilot Pilot	Napomene Notes
21.1.	E- (W.Nr.1285) ...?	S. Martinašević	Zaštita uzletišta Mariopol. <i>Protection of Mariopol airfield.</i>
	E- (W.Nr.950) ...?	S. Radić	
9.2.	E-7 (W.Nr.1438) ...?	M. Čulinović	Oborio dva I-16 <i>Gunned down two I-16s.</i>
12.2.	E-7 (W.Nr.7672) ...?	S. Boškić	Prisilno se spustio radi kvara zrakoplova. <i>Crash-landed due to aircraft damage.</i>
2.3.	E- (W.Nr.1284) ...?	C. Galić	Na obali Azovskog mora iznad Magnitovke oborio R-10. <i>Gunned down a R-10 over the coast of the Sea of Azov above Magnitovka.</i>
5.3.	E-7 (W.Nr.1438) ...?	C. Galić	Iznad Lisonogorskaje obaraju svaki po dva I-16. <i>Each gunned down two I-16s above Lisonogorskaja.</i>
	E- (W.Nr.6084) ...?	J. Lasta	
15.3.	E- (W.Nr.1479) ...?	I. Jergović	Obojica obaraju po jedan I-16. <i>Both shot down an I-16.</i>
	E- (W.Nr.6354) ...?	S. Martinašević	
20.3.	E-7 (W.Nr.1438) ...?	F. Džal	Džal i Vučina obaraju po jednog MiGa, a Miković dva I-16. (Džalova druga pobjeda). <i>Džal and Vučina shot down a Mig each and Miković two I-16s. (Džal's second victory).</i>
	E- (W.Nr.1285) ...?	N. Vučina	
	E- (W.Nr.6087) ...?	V. Miković	

* W.Nr. – Werke Nummer (njem.) – tvornički broj ; (Ger.) – Production number.

24.3.	E- (W.Nr.950) ...?	J. Lasta	Lasta obara I-16, a Radić Miga. <i>Lasta gunned down an I-16 and Radić shot down a Mig.</i>
	E- (W.Nr.3864) ...?	S. Radić	
29.3.	E-7 (W.Nr.1438) ...?	F. Džal	Zajedno s Mikovićem i Lastom vodi borbu protiv 10 I-153 i I-16. Oborio je jedan I-153. <i>Fought together with Miković and Lasta against 10 I-153s and an I-16. Shot down one I-153.</i>
7.4.	E- (W.Nr.1285) ...?	C. Galić	Obara jedan I-16 (ukupno peta pobjeda). <i>Gunned down an I-16, (fifth overall victory).</i>
	E- (W.Nr.6087) ...?	V. Miković	Oborio jednog Miga (28 pobjeda jata). <i>Gunned down a Mig, (28th victory of the Squadron).</i>
27.4.	E-3 (W.Nr.1411) zeleni "4"/ <i>green "4"</i>	B. Supek	Prebjegao na sovjetsku stranu. <i>Defected to the Soviet Side.</i>
4.5.	E-7 (W.Nr.1506) zeleni "9"/ <i>green "9"</i>	N. Vučina	Prebjegao na sovjetsku stranu. <i>Defected to the Soviet side.</i>
20.7.	G-2 (W.Nr.13411) crni "13"/ <i>black "13"</i>	V. Miković	Nestao u akciji iznad Rostova. <i>Went missing in action above Rostov.</i>
23.7.	G-2 (W.Nr.13489) ...? "9"	Lj. Bencetić	Nakon alarm-starta oštetio zrakoplov pri polijetanju. <i>Damaged the aircraft during an alert take-off.</i>
27.7.	G-2 (W.Nr.13436) crni "1"/ <i>black "1"</i>	F. Džal	Obara jedan zrakoplov. <i>Shot down one aircraft.</i>
	G-2 (W.Nr.13432) crni "3"/ <i>black "3"</i>	C. Galić	Obara jedan zrakoplov. <i>Shot down one aircraft.</i>
	G-2 ...? "5"	Lj. Bencetić	Napada tri bombardera DB-3. <i>Attacked three DB-3 bombers.</i>
28.7.	G-2 (W.Nr.13436) crni "1"/ <i>black "1"</i>	F. Džal	Pogođen u motor, te se prinudno spušta iza neprijateljskih linija, ali se uspijeva vratiti u postrojbu. <i>Hit in the engine and crash-landed behind enemy lines but managed to return to the formation.</i>
1.8.	G-2 ...? "2"	A. Starc	Obojica obaraju po jednog LaGG-1 iznad Novo-Pokrovskaje. <i>Each gunned down one LaGG-1 above Novo-Pokrovskaja.</i>
	G-2 (W.Nr.13432) crni "3"/ <i>black "3"</i>	C. Galić	
2.8.	E- ...? "10"	Z. Stipčić	Zaštita mostova kod Rostova. <i>Protected bridges at Rostov.</i>
	E-3 zeleni "17"/ <i>green "17"</i>	S. Radić	
8.8.	G-2 (W.Nr.13463) crni "8"/ <i>black "8"</i>	J. Hellebrant	Oborio DB-3 zapadno od Armavira. <i>Shot down a DB-3 west of Armavir.</i>
13.8.	G-2 (W.Nr.13432) crni "3"/ <i>black "3"</i>	C. Galić	Sjeverozapadno od Neftogorska Galić oborio jedan I-153, a Martinašević dva. <i>Northwest of Neftogorsk Galić, shot down one I-153 and Martinašević two.</i>
	G-2 ...? "9"	S. Martinašević	

14.8.	G-2 crni "8"/ <i>black "8"</i>	J. Hellebrant	Spustio se na "trbuh" zbog kvara na podvozju. <i>Landed on its "belly" due to faulty landing gear.</i>
16.8.	G-2 (W.Nr.13432) crni "3"/ <i>black "3"</i>	C. Galić	Zračna borba iznad Novorosijska pri zaštiti Ju 87. Oba pilota obaraju po jedan ruski zrakoplov. <i>Aerial battles above Novorosijska while protecting a Ju 87. Each of the pilots shot down one Russian aircraft.</i>
	G-2 ...? "10"	S. Boškić	
19.8.	G-2 ...? "5"	T. Kauzlarić	Oborio I-153 iznad Gastojevskaje. <i>Gunned down an I-153 above Gastojevskaja.</i>
	G-2 ...? "5"	A. Starc	Oborio La GG-3. <i>Shot down a La GG-3.</i>
24.8.	G-2 ...? "2"	A. Starc	Oborio La GG-3. <i>Shot down a La GG-3.</i>
	G-2 ...? "6"	T. Kauzlarić	Oborio jedan zrakoplov. <i>Shot down one aircraft.</i>
29.8.	G-2 ...? "6"	T. Kauzlarić	Oborio Mig-3. <i>Shot down a Mig-3.</i>
	G-2 ...? "9"	S. Radić	Obara jedan zrakoplov, ali dobiva pogodak u hladnjak motora od protuzračne obrane te pogiba pri slijetanju kod Tuapse. <i>Shot down one aircraft but was hit in the radiator by anti-aircraft defence and was killed while landing at Tuapsa.</i>
	G-2 " ? "	J. Hellebrant	Obara jedan zrakoplov (vjerojatno IL-2) <i>Gunned down one aircraft (probably an IL-2).</i>
30.8.	G-2 ...? "13"	F. Džal	Obara dva IL-2 i jedan zrakoplov nepoznatog tipa. <i>Shot down two IL-2s and one aircraft of unknown type.</i>
	G-2 crni "7"/ <i>black "7"</i>	S. Martinašević	Obara jedan zrakoplov. <i>Gunned down one aircraft.</i>
31.8.	G-2 (W.Nr.13432) crni "3"/ <i>black "3"</i>	C. Galić	Oborio I-16. <i>Shot down an I-16.</i>
1.9.	G-2 (W.Nr.13432) crni "3"/ <i>black "3"</i>	C. Galić	Oborio Mig-3 iznad Novorosijska. <i>Shot down a Mig-3 above Novorosijsk.</i>
4.9.	G-2 (W.Nr.13463) crni "8"/ <i>black "8"</i>	J. Hellebrant	Prati s Džalom, Kauzlarićem i Martinaševićem FW 189, te u zračnoj borbi obara La GG-3. <i>Followed FW 189 with Džal, Kauzlarić and Martinašević and in aerial battle, shot down a La GG-3.</i>
5.9.	G-2 (W.Nr.13432) crni "3"/ <i>black "3"</i>	C. Galić	Obara La GG-1 pri pratnji FW 189. <i>Shot down a La GG-1 while following FW 189.</i>
6.9.	G-2 " ? "	Lj. Bencetić	Oborio DB-3. <i>Shot down a DB-3.</i>

8.9.	G-2 uti "12"/ yellow "12"	C. Galić	Oborio I-153. <i>Shot down an I-153.</i>
	G-2 crni "11"/ black "11"	J. Lasta	Oborio I-153. <i>Shot down an I-153.</i>
9.9.	G-2 uti "12"/ yellow "12"	C. Galić	Pogoden u krilo. <i>Hit in the wing.</i>
10.9.	G-2 ...? "10"	J. Hellebrant	Oborio DB-3. <i>Gunned down a DB-3.</i>
11.9.	G-2 crni "1"/ black "1"	F. Džal	Zračna borba Džala, Kauzlarića, Galića i Hellebranta protiv 5 I-153 i 14 I-16. Džal obara I-153 i I-16, a Kauzlarić I-16. Hellebrantov Bf 109 biva greškom pogoden od njemačkog topništva, te se prinudno spušta. <i>Aerial combat of Džal, Kauzlarić, Galić, and Hellebrant, against five I-153s and fourteen I-16s. Džal gunned down an I-153 and an I-16, and Kauzlarić an I-16. Hellebrant's Bf 109 was hit by German anti-aircraft artillery, by mistake, and crash-landed.</i>
	G-2 ...? "6"	T. Kauzlarić	
	G-2 ...? "10"	J. Hellebrant	
16.9.	G-2 ...? "4"	F. Džal	Nakon alarm-starta vode borbu protiv bombardera Pe-2. Boškićev Bf 109 je pobođen. <i>Following an alert take-off, they fought against a Pe-2 bomber. Boškić's Bf 109 was hit.</i>
	G-2 ...? "10"	S. Boškić	
19.9.	Bf 108 BD+JG		Boškić, Kauzlarić, Hellebrant i Bencetić preletjeli u Uman po nove lovce Bf 109. <i>Boškić, Kauzlarić, Hellebrant and Bencetić flew to Uman to get new Bf 109 fighters.</i>
25.9.	G-2 ...? "14"	C. Galić	Nakon alarm-starta u paru s Boškićem napada 4 IL-2, te jednog obara. <i>After an alert take-off, together with Boškić, attacked 4 IL-2s and shot down one of them.</i>
28.9.	G-2 crni "8"/ black "8"	J. Hellebrant	Napadaju topovnjaču kod Tagamiša. <i>Attacked a gun-boat at Tagamiš.</i>
	G-2 ...? "10"	A. Starc	
30.9.	G-2 crni "1"/ black "1"	F. Džal	U zračnoj borbi u 8.35 sati Džal obara dva LaGG-a, a u 8.37 Boškić jednog. <i>In aerial combat Džal shot down two LaGGs at 8:35 a.m. and Boškić one at 8:37 a.m.</i>
	G-2 " ? "	S. Boškić	
6.10.	G-2 crni "8"/ black "8"	J. Hellebrant	Hellebrant obara IL-2 nakon čega je pogoden u motor i ranjen, a Starc obara jednog LaGG-a. <i>Hellebrant shot down an IL-2 after which he was hit in the engine and wounded, while Starc gunned down one LaGG.</i>
	G-2 " ? "	A. Starc	
9.10.	G-2 crni "1"/ black "1"	F. Džal	U paru vode borbu s 13 bombardera SB-2 i 4 LaGG-a. Kauzlarić je lakše ranjen. <i>Fought as a team against 13 SB-2 bombers and 4 LaGGs. Kauzlarić was lightly wounded.</i>
	G-2 ...? "14"	T. Kauzlarić	

10.10.	G-2 ...? "2"	Lj. Bencetić	Sjeveroistočno od Lazarevskaje napada ga 14 lovaca LaGG, ali uspijeva pobjeći. <i>Northeast of Lazarevskaja, 14 LaGG fighters attacked him, but he managed to escape.</i>
25.10.	G-2 crni "8"/ black "8"	J. Hellebrant	Istočno od Krasnoje obara dva LaGG-a. <i>Shot down two LaGGs east of Krasnoja.</i>
	G-2 ...? "4"	A. Starc	Istočno od Krasnoje obara dva LaGG-a. <i>Shot down two LaGGs east of Krasnoja.</i>
	G-2 ...? "11"	F. Džal	Obara Miga kod Tuapse. <i>Shot down a Mig at Tuapsa.</i>
27.10.	G-2 crni "1"/ black "1"	F. Džal	Obara Pe-2. <i>Gunned down a Pe-2.</i>
	G-2 ...? "2"	Lj. Bencetić	Zajedno s Lastom napada tri borbena čamca. <i>Together with Lasta attacked 3 patrol boats.</i>
28.10.	G-2 ...? "15"	C. Galić	Obara LaGG-a. <i>Shot down a LaGG.</i>
	G-2 (W.Nr.1317.?) ...? "16"	J. Lasta	Oborio LaGG-a, a na povratku se uslijed eksplozije motora srušio kraj rijeke Beloje i poginuo. <i>Shot down a LaGG and while returning, crashed due to an engine explosion near the river Beloja and was killed.</i>
	G-2 ...? "1"	F. Džal	Pri pratnji Ju 87 Džal obara dva LaGG-a, a Galić i Bencetić po jednog Miga. <i>While following a Ju 87, Džal gunned down two LaGGs and Galić and Bencetić got one Mig each.</i>
	G-2 ...? "6"	C. Galić	
	G-2 ...? "5"	Lj. Bencetić	
	G-2 ...? "6"	J. Hellebrant	Prisilno se spustio pri pratnji Ju 87. <i>Crash-landed while following a Ju 87.</i>
	Klemm 35 CI+SF	A. Starc	Vratio Hellebranta u postrojbu. <i>Returned Hellebrant to the formation.</i>
29.10.	G-2 (W.Nr.13432) crni "3"/ black "3"	Lj. Bencetić	Oborio LaGG-a. <i>Shot down a LaGG.</i>
	G-2 crni "11"/ black "11"	S. Boškić	Oborio LaGG-a. <i>Shot down a LaGG.</i>
30.10.	G-2 (W.Nr.13608) crni "10"/ black "10"	J. Nikoljačić	Zapadno od Tuapse pogoden je u motor, te pogiba. <i>West of Tuapsa it was hit in the engine.</i>
3.11.	G-2 (W.Nr.13445) ...? "15"	C. Galić	Zajedno s Viceom vodi borbu sa sedam I-153 i osam LaGG-ova, pritom je pogoden. <i>Together with the pilot Vice, fought against 7 I-153s and 8 LaGGs and was hit.</i>
11.11.	G-2 crni "11"/ black "11"	M. Dukovac	Obara I-16 (prva pobjeda). <i>Shot down an I-16 (first victory).</i>

1943			
18.2.	G-2 KJ+GB	J. Čipčić	Zajedno s Ferenčinom, Viceom i Antićem u 12:20 sati polijeće iz Krakova na novo uzletište Lemberg. Antić i Vice se prinudno spuštaju 20-tak km od novog uzletišta, a Čipčić pri istom pokušaju pogiba 40-tak km od Lavova. <i>Together with Ferenčina, Vice and Antić took-off at 12:20 p.m. from Krakow for the new airfield Lemberg. Antić and Vice crash-landed about 20 km from the new airfield and attempting the same Čipčić was killed about 40 km from Lavov.</i>
31.3.	G-2 (W.Nr.14824) bijeli "10"/ <i>white "10"</i>	I. Antić	U paru s Galićem vodi borbu s 8 LaGG-ova pri kojoj je poginuo. <i>Fought as a pair with Galić against 8 LaGGs and was killed.</i>
1.4.	G-2 ...? "6"	C. Galić	Uz Vicea, Dukovca i Mihelčića vodi borbu s 8 LaGG-3, a u 17:25 h obara jednog. <i>Fought with Vice, Dukovac and Mihelčić against 8 LaGG-3s and shot down one at 5.25. p.m.</i>
11.4.	G-2 crni "9"/ <i>black "9"</i>	Mihelčić	Oborio je I-16. <i>Shot down an I-16.</i>
15.4.	G-2 crni "8"/ <i>black "8"</i>	M. Dukovac	Zajedno s Mihelčićem vodi borbu protiv 6 P-39 Airacobri, a u 15:30 h jednu obara. <i>Fought with Mihelčić against 6 P-39s and shot down one at 3:30. p.m.</i>
16.4.	G-2 ...? "5"	Ij. Bencetić	Zajedno s Bartulovićem prati Henschel Hs 129. <i>Following Henschel Hs 129 together with Bartulović.</i>
20.4.	G-2 ...? "4"	C. Galić	Zajedno s Mihelčićem i Bartulovićem (brojevi 7 i 9), vode borbu s 25 lovaca i hidrozrakoplova. Galić obara jedan MDR-6, a Dukovac LaGG-3. <i>Fought together with Mihelčić and Bartulović (numbers 7 and 9) against 25 fighters and hydro-aircraft. Galić shot down one MDR-6 and Dukovac a LaGG-3.</i>
21.4.	G-2 ...? "6"	C. Galić	Pogođen je u borbi s 6 protivničkih lovaca. <i>Hit in fought with six fighters.</i>
	G-2 crni "7"/ <i>black "7"</i>	M. Dukovac	Oborio je Mig-a i jedan LaGG-3. <i>Shot down a Mig and a LaGG-3.</i>
	G-2 ...? "14"	J. Bartulović	Oborio je LaGG-3. <i>Shot down a LaGG-3.</i>
22.4.	G-2 ...? "6"	C. Galić	Oborio je MDR-6. <i>Shot down a MDR-6.</i>
	G-2 crni "7"/ <i>black "7"</i>	M. Dukovac	Oborio je DB-3. <i>Shot down a DB-3.</i>
27.4.	G-2 zeleni "6"/ <i>green "6"</i>	C. Galić	Oborio je LaGG-3. <i>Shot down a LaGG-3.</i>
	G-2 bijeli "14"/ <i>white "14"</i>	M. Dukovac	Oborio je LaGG-3. <i>Shot down a LaGG-3.</i>
	G-2 zeleni "14"/ <i>green "14"</i>	J. Bartulović	Oborio je LaGG-3. <i>Shot down a LaGG-3.</i>

2.5.	G-2 ...? "6"	C. Galić	Oborio je LaGG-3. <i>Shot down a LaGG-3.</i>
3.5.	G-2 crni "9"/ <i>black "9"</i>	M. Dukovac	U borbi protiv četiri LaGG-3 jednog obara, a isti dan obara i jedan IL-2. <i>In a battle against 4 LaGG-3s shot down one and on the same day shot down an IL-2.</i>
	G-2 ...? "6"	C. Galić	Oborio je dva zrakoplova. <i>Gunned down two aircraft.</i>
	G-2 ...? "4"	Mihelčić	Oborio je IL-2. <i>Shot down an IL-2.</i>
5.5.	G-2 crni "7"/ <i>black "7"</i>	M. Dukovac	Oborio je tri LaGG-a. <i>Shot down three LaGGs.</i>
6.5.	G-2 ...? "4"	J. Bartulović	Oborio je tri LaGG-a. <i>Gunned down three LaGGs.</i>
	G-2 uti "12"/ <i>yellow "12"</i>	Ij. Bencetić	Oborio je Jak-1. <i>Shot down a Jak-1.</i>
	G-2 ...? "7"	M. Dukovac	Oborio je LaGG-3. <i>Shot down a LaGG-3.</i>
8.5.	G-2 crni "7"/ <i>black "7"</i>	M. Dukovac	Oborio je LaGG-3. <i>Shot down a LaGG-3.</i>
	G-2 ...? "14"	J. Bartulović	Oborio je LaGG-3. <i>Shot down a LaGG-3.</i>
14.5.	G-2 (W.Nr.13485) "<2"	B. Vujčić	Nakon borbenog leta iznad željezničke postaje Krimskaja obojica su prebjegla Sovjetima na uzletište Bjelaja Glina sjeveroistočno od Krasnodara. <i>Following a combat flight above Krimskaja railway station both pilots defected to the Soviets at Bjelaja airfield Glina northeast of Krasnodar.</i>
	G-2 (W.Nr.14545) zeleni "11"/ <i>green "11"</i>	A. Starc	
24.5.	G-2 ...? "14"	N. Cvikić	Prinudno sletio 15 km istočno od Tanana zbog požara na motoru. <i>Crash-landed 15 km east of Tanan due to an engine fire.</i>
25.5.	G-2 ...? "6"	C. Galić	Vode borbu protiv četiri Spitfirea pri kojoj svaki obara po jednoga. <i>Fought against 4 Spitfires and each gunned down one.</i>
	G-2 crni "7"/ <i>black "7"</i>	M. Dukovac	
27.5.	G-2 ...? "6"	C. Galić	U borbi protiv osam LaGG-ova svaki obara po jednoga. <i>During combat against 8 LaGGs, each shot down one.</i>
	G-2 crni "8"/ <i>black "8"</i>	N. Cvikić	

29.5.	G-2 crni "1"/ <i>black "1"</i>	J. Hellebrant	Vode borbu protiv šest Spitfire-a. <i>Fought against six Spitfires.</i>
	G-2 ...? "4"	M. Dukovac	
	G-2 ...? "6"	C. Galić	
30.5.	G-2 ...? "7"	M. Dukovac	Oborio je LaGG-a iznad Krasnodara. <i>Shot down a LaGG above Krasnodar.</i>
8.6.	G-2 crni "<1"/ <i>black "<1"</i>	F. Džal	Oborio je Jaka. <i>Shot down a Jak.</i>
15.6.	G-2 (W.Nr.14205) zeleni "2"/ <i>green "2"</i>	N. Cvikić	Prebjegao Sovjetima na uzletište Bjelaja Glina. <i>Defected to the Soviets at Bjelaja Glina airfield.</i>
29.10.	G-4 (W.Nr.19494) " ? "	Z. Rajtarić	Srušio se 15 km zapadno od Kerča pri povratku na uzletište Bagerovo je poginuo. <i>Crashed 15 km west of Kerč while returning to Bagerovo airfield and was killed.</i>
2.11.	G-4 " ? "	M. Dukovac	U zračnoj borbi pogoden u motor, te se prinudno spušta u blizini Marientala. <i>Hit in the engine during areal combat and crash-landed near Mariental.</i>
7.11.	G-? (W.Nr.20039) " ? "	S. Vladimir	Oboren iznad Azovskog mora (poginuo) u borbi s P-39 i La-5. <i>Was shot down above the Sea of Azov (the pilot was killed) while fighting against a P-39 and La-5.</i>
9.11.	G-6 (W.Nr.18497) bijeli ili žuti "13"/ <i>white or yellow "13"</i>	Z. Avdić	U borbi s LaGG-3 iznad uzletišta Kerč oboren. Izgubio je ruku te prestao letjeti. <i>Was shot down above Kerč airfield while fighting against a LaGG-3. The pilot lost an arm and stopped flying.</i>
12.11.	G-6 (W.Nr.19680) " ? "	E. Martinko	Greškom oboren iznad uzletišta Bagerovo od strane njemačkog topništva. <i>Was shot down by mistake by German artillery above Bagerovo airfield.</i>
27.11.	G-6 (W.Nr.19475) " ? "	D. Gazapi	Poginuo u zračnoj borbi. <i>Killed in aerial combat.</i>
1944			
20.9.	G-? " ? "	M. Dukovac	S uzletišta Labiau u Litvi prebjegli Sovjetima. <i>Defected to the Soviets from Labiau airfield in Lithuania.</i>
	G-? " ? "	V. Špoljar	

5. zrakoplovna bombarderska skupina

Od pilota i osoblja, koji su u Greifswalden stigli 19. srpnja (uključeni su u sastav Grosse Kampfflieger Schule 3), nakon završene tromjesečne izobrazbe osnovano je bombardersko jato (10-ak posada zrakoplova i 100-tinjak ostalih). Piloti su na izobrazbi bili podijeljeni na dvije grupe. Prvu je činilo osoblje koje je već letjelo na dvomotornim zrakoplovima. Njihovo je znanje samo provjeravano na zrakoplovima FW 58 nakon čega su prelazili na Dornijere Do 17. Druga je grupa imala temeljitiju izobrazbu, u početku na zrakoplovima Junkers W 34 i FW 58, a tek potom su prelazili na Do 17. U prvoj polovini listopada, pošto su u Königsbergu dobili njemačke odore, krenuli su na istočno bojište, gdje su pripojeni Luftfloti I. skupine armije Centar. Od 25. listopada smješteni su u Vitbesku, gdje su stigli preko Minska. Jato je uključeno u III/KG 3. Prvi let izvršila je posada natporučnika Pavelića 25. listopada 1941. tijekom kojega je oborila ruski lovac I-16 Rata. Osobito su bili opasni letovi iznad Moskve. Zbog jake ruske obrane često su izvršavani s malih visina. Prilikom jednog napada ja grupe od deset zrakoplova Do 17 na uzletišta u blizini Moskve četiri su oštećena, ali su se vratila u Vitbesk. Napadani su i ciljevi istočno od Kalinjina. U prva dva mjeseca uništili su više od 470 teretnih i 25 oklopnih vozila i veći broj objekata. Pokatkad su letjeli bez lovačke pratnje, što je letove činilo rizičnim. Ni gubitci se nisu mogli izbjeći. Prosječno se na dan izvršavalo od četiri do šest letova. U siječnju 1942. skupina je premještena u Vjazmu, a nakon pogibije zapovjednika bojnika Vladimira Graovca, zamijenio ga je poručnik Ivan Mesić. Od 1. siječnja 1942. skupina izlazi iz sastava III/KG 3 i djeluje kao 15 (Kroatisch) Staffel/ KG 53. Borbe oko Moskve su se nastavile po najtežim vremenskim uvjetima pri temperaturi -40°C. Zaustavljeno je rusko napredovanje kod Starice i Gžanška te prijelaza preko gornjeg toka rijeke Volge. U siječnju je bačeno 2 360 bomba i uništeno 150 teretnih vozila, tri vučna stroja i pet oklopnih kola. U samoobrani su oborena četiri ruska lovca. Do povratka u Hrvatsku, u ožujku 1942., izvršili su 400 borbenih letova. U drugoj polovini lipnja 1942. vraćeni su na bojište. Trinaest zrakoplova Do 17 Z-2 uzletjelo je s uzletišta Ausbach 23. lipnja u 9 sati, a u Kolberg su stigli u podne. Nekoliko sati poslije preletjeli su u Königsberg. Na krajnje odredište, na uzletišta Solzy jugozapadno od Ilmenskog jezera, stigli su dva dana poslije. Dva zrakoplova zbog kvara na motoru ostala su u Königsbergu. U Solzy je sletjelo deset zrakoplova. Zrakoplov pilota Olega Okševskog Do 17 nestao je u blizini uzletišta, ali nitko to nije primijetio jer je u tom trenutku u zraku bilo 11 Dorniera. Područje oko uzletišta je detaljno pretraženo, ali kako olupina zrakoplova nije pronađena, pretpostavlja se da je prebjegao Sovjetima.

The 5th Air Force Bomber Group

The Bomber Squadron (around ten aircraft crews and around 100 ground support personnel) was formed from the pilots and personnel that had arrived at Greifswalden on 19th July (and were included in the Grosse Kampfflieger Schule 3), and who had by then completed three months of training. During the training, pilots were divided into two groups. The first consisted of personnel that had already flown on twin-engine aircraft. Their knowledge was only tested on FW 58 aircraft, after which they went on to Dornier Do 17s. The other group received thorough training, first on Junkers W 34 and FW 58 aircraft, and then went on to Do 17s. In the first half of October, after they received German uniforms at Königsberg, they left for the Eastern Front, where they were linked to the Luftflotte of the 1st Group of Centre Armies. From 25th October, they were located at Vitbesk, where they had arrived via Minsk. The squadron was included in the III/KG 3. Lieutenant Pavelić's crew performed the first flight on 25th October, during which it shot down a Russian I-16 Rata fighter. The flights above Minsk were especially dangerous. Owing to a strong Russian defence, they were often carried out at low altitudes. During one attack by a group of Do 17 aircraft on an airfield near Moscow, four were damaged, but returned to Vitbesk. Targets east of Kalinin were also attacked. In the first two months, they destroyed more than 470 transport vehicles, 25 armoured vehicles, and many buildings. Sometimes they flew without a fighter escort, which made flights very risky. Losses could not have been avoided. An average of 4 to 6 flights were performed daily. In January 1942, the group was transferred to Vjazma, and after the Commander, Major Vladimir Graovac, had been killed, 2nd Lieutenant Ivan Mesić took his place. From 1st January 1942, it was no longer a part of the III/KG 3, and operated as the 15th (Kroat) Staffel/KG 53. The fighting around Moscow continued in the harshest weather, at a temperature of -40° C. The Russian advance was stopped at Starica and Gžanšk, and at the crossing over the upper Volga River. In January, 2,360 bombs were dropped, and 150 transport vehicles, 3 towing trucks, and 5 armoured vehicles were destroyed. Four Russian fighters were shot down in self-defence. By the time they returned to Croatia in March 1942, they had performed 400 combat flights. In the second half of June 1942, they were returned to the battlefield. On 23rd June, thirteen Do 17 Z-2 aircraft took off from Ausbach airfield at 9.00 a.m. and reached Kolberg at noon. Several hours later, they flew over to Königsberg. They arrived at their final destination, Solzy airfield, southwest of Lake Ilmen, two days later. Due to engine trouble, two aircraft remained at

Tada je zapovjednik skupine bio vojnik Nikola Mikec. U sastavu Luftflotte I. operacije su obavljali jugoistočno od Leningrada.

Željeznicom je 28. lipnja stiglo i sve preostalo osoblje. Prvi borbeni zadaci obavljani su 1. srpnja. U dva je puta izvršeno ukupno 18 polijetanja. Glavni cilj napadaja – selo Krasnodubje – bombardirano je s visine 400 do 500 metara. Nakon toga cilj je napadnut strojničkom vatrom. U selu je pogodeno 60 posto objekata, a izazvani su i požari. U drugom napadaju toga dana bombardirano je pošumljeno područje na obali Biloja jezera. U tim je napadajima utrošeno 150 bomba SC-50 i 180 bomba SD-50, te 10 800 strojničkih nabojâ. Pri povratku jedan je zrakoplov slomio podvozje dok je slijetao. Sljedećeg su dana na različite ciljeve u ranim jutarnjim satima počeli napadaji i trajali sve do predvečerja (četiri napadaja). Među ostalim ciljevima napadane su i kolone vozila. Sa zemlje je otvarana snažna protuzračna topnička vatra. Napadaji na sela koja su nadzirali ruski partizani te na kolone vozila na prometnicama, izvršavali su se svaki dan. Zapovjednik KG 53 pukovnik Paul Weitkus 8. srpnja pohvalio je hrvatske zrakoplovce zbog izvedenih akcija na području oko Ilmenskog jezera. Pri izvršenju borbene zadaće 9. srpnja zrakoplov pilota Josipa Telara dobio je izravan pogodak u krilo, ali nitko od posade nije ozlijeđen. Rok Mirošević je toga dana izvršio 60-u borbenu zadaću. Zrakoplov Do 17 natporučnika Ivana Boka od pogotka granate u desni spremnik goriva tih je dana zapaljen u zraku, i srušio se na protivničko područje. I zrakoplov natporučnika Marića pogoden je u



164. Dornier Do 17 Z-2. Prvi slijeva nosi registarsku oznaku A1+BZ.

164. Dornier Do 17 Z-2 s. The aircraft to the left, has the serial number A1+BZ.

Königsberg. Ten aircraft landed at Solzy. Pilot Oleg Okševski's Do 17 disappeared near the airfield, but no one noticed this at the time, for there were eleven Dorniers in the air. The area surrounding the airfield was searched thoroughly, but since an aircraft wreck was not found it was presumed that he defected to the Soviets. At the time, the Group Commander was Major Nikola Mikec. While they were a part of the Luftflotte I, they carried out operations southeast of Leningrad.

All the remaining personnel arrived by rail on 28th June. The first combat missions were performed from 1st July. Twice, they performed a total of eighteen take-offs. The main target that was attacked - the village of Krasnodubje - was bombed from a height of 400-500m. Then the target was attacked with machine-gun fire. In the village, 60 percent of the buildings were hit, and fires broke out. In the second attack of that day, a woodland area on the banks of Lake Biloja was bombed. In these attacks, 150 SC-50 bombs, and 180 SD-50 bombs, were used, as well as 10,800 machine-gun rounds. When returning, one of the aircraft broke its landing gear while landing. Early next morning, attacks on various targets began, and lasted until dusk (four attacks). Among other targets, lines of vehicles were attacked too. Intensive anti-aircraft cannon fire was opened from the ground. Villages that were controlled by Russian Partisans, and lines of vehicles on the roads, were attacked daily. On 8th July, the commander of the KG 53, Colonel Paul Weitkus, commended the Croatian airmen for the operations they had conducted around Lake Ilmen. On 9th July, while carrying out a mission, pilot Josip Telar's aircraft took a direct hit on the wing but none of the crew were injured. That day, Rok Mirošević had already performed sixty combat missions. Around that time, Lieutenant Ivan Bok's Do17 was hit by shellfire in the right fuel tank; it caught fire in mid-air and crashed onto enemy territory. The fuselage of Lieutenant Marić's aircraft was also hit on 20th July. From the following day on, the group was included in the KG 1 "Hindenburg". During an attack on 25th July, owing to very heavy anti-aircraft fire, one Do 17 type haphazardly dropped its bombs on its own territory, by mistake. During intensified attacks on a railway station on 6th August, Lieutenant Peršić's Do 17 was hit on the fin, but managed to return to base. They spent the winter of 1942/43 at the airfield. All personnel that had spent the winter on the Eastern Front received medals for the winter expedition. While performing missions on 11th August 1943, five aircraft were damaged, but all returned to the airfield. Two days later, another Do 17 was hit on the wing but it also returned to Solzy. On 15th August, the Group Commander received an order to transfer the formation to the central section of the theatre, at Sečenskoja airfield, 120 km southeast of Smolensk. Before six airworthy aircraft departed the Luftflotte I, Commanding General Keller visited the group, and decorated six officers

trup 20. srpnja. Od sljedećeg dana skupina je uključena u sastav KG 1 "Hindenburg". Prilikom napadaja, izvršenog 25. srpnja, zbog vrlo snažne protuzračne obrane jedan od Do 17 greškom je naslijepo izbacio bombe na vlastito područje. Tijekom pojačanih napadaja na željezničku postaju 6. kolovoza Do 17 časničkog namjesnika Peršića dobio je pogodak u vertikalni stabilizator, ali se uspio vratiti u bazu. Zimu 1942./43. proveli su na uzletištu. Cjelokupno osoblje koje je zimu provelo na istočnom bojištu dobilo je Medalje za zimsku vojnu na istoku (medaille "Winterschlach im Osten 1941-1942."). Pet je zrakoplova pri izvršenju zadatka 11. kolovoza 1943. oštećeno, ali su se svi vratili na uzletišta. Dva dana poslije još je jedan Do 17 pogođen u krilo, ali se i on vratio na Solzy. Zapovjednik skupine dobio je 15. kolovoza naredbu o preseljenju postrojbe na središnji odsjek bojišta na uzletišta Sečenskoja, 120 km jugo-istočno od Smolenska. Prije odlaska šest ispravnih zrakoplova skupinu je posjetio zapovjednik Luftflotte I. general Keller i odlikovao šest časnika Željeznim križem I. reda ("Eisernes Kreuz I Klasse"), a 24 časnika i dočasnika Željeznim križem II. reda ("Eiserner Kreuz II Klasse"). Zapovjednik skupine generalu je darovao legionarski znak s poveljom. Od 16. kolovoza skupina djeluje s novog uzletišta.

Njemački časnik za vezu, satnik Kettner, 18. kolovoza prisižno se spustio kod sela Osevičino pri čemu je ozlijeđen, pa ga privremeno zamjenjuje novi časnik Gerbeth. U noći 24. kolovoza uzletišta je bombardirano iz zraka, pa se toga dana nije letjelo. Napadaj je počeo u 19 sati, a s prekidima trajao je sve do jutarnjih sati. Jedan Do 17 je oštećen. Prilikom zatrpavanja kratera pronađeno je 28 neaktiviranih bombi. Na polijetanju 26. kolovoza zrakoplov Do 17 natporučnika Vlade Šmita izgubio je brzinu i srušio se s visine 80 metara. Cjelokupna posada je poginula u požaru koji je nastao. Sljedećeg dana tijekom leta jedan zrakoplov je pogođen u trup i krila, a drugi se prinudno spustio bez izvučenog podvozja. Skupina je 31. kolovoza preletjela tri tipa Do 17 na sjeverni odsjek bojišta (uzletišta Gostkin). Prateće osoblje je preletjelo s tri Ju 52. Jedanaest dočasnika i domobrana vraćeno je 18. rujna u Hrvatsku zbog bolesti ili nečasnog ponašanja. Vrlo su intenzivno letjeli 21. rujna, kada je izvršeno 21 polijetanje. Jedan je zrakoplov oštećen. Dva dana poslije uzletišta je ponovno napadnuto iz zraka bombama i strojnicama iz niskog leta. Zrakoplov Do 17 poručnika Marića prilikom slijetanja 29. rujna zapalio se i tri su člana posade ozlijeđena. U to vrijeme skupina leti iznad područja oko Ladoškog jezera. Zbog dobrih rezultata u djelovanju, skupinu je pohvalio zapovjednik Luftflotte I. Loši vremenski uvjeti često su onemogućavali pronalaženje ciljeva, pa su se bombe katkad bacale naslijepo. Zabilježen je i slučaj jednog Dorniera koji je na uzletišta sletio s 20 bombi SC-50 u bomboluku, što je bilo vrlo riskantno i opasno. Od 12. do 19. listopada nije se letjelo zbog lošeg vremena. Skupina je 20. listopada po naredbi prešla na uzletišta

with the Iron Cross, First Class, and twenty-four officers and non-commissioned officers with the Iron Cross, Second Class. The Group Commander presented the General with a Legionary Flying Badge and certificate. The group began operating from the new airfield on 16th August.

On 18th August, German liaison officer, Captain Kettner, crash-landed at the village of Osevičino and was injured, so he was temporarily replaced by a new officer - Gerbeth. On the night of 24th August, the airfield was bombed from the air, so there was no flying that day. The attack began at 7.00 p. m., and lasted on and off, right up till the morning hours. One Do 17 was damaged. While filling in the craters, twenty-eight inactivated bombs were found. During take-off on 26th August, Lieutenant Vlado Šmit's Do 17 lost speed and crashed from a height of 80m. The entire crew were killed in the fire that developed. While flying the next day, one aircraft was hit on the fuselage and on the wings, and another crash-landed without lowering its landing gear. On 31st August, the group flew three Do 17 over to the northern section of the theatre (Gostkino airfield). The accompanying personnel flew over in three Ju 52s. Eleven non-commissioned officers and members of the Home Guard were returned to Croatia on 18th September, due to illness or dishonourable conduct. The flying was particularly intensive on 21st September, when twenty-one take-offs were performed. One aircraft was damaged. Two days later, the airfield was attacked once more with aerial bombs and low-level strafing. While landing on 29th September, Lieutenant Marić's Do 17 caught fire, and three of the crew members were injured. At that time, the group was flying above the area surrounding Lake Ladoga. The Commander of Luftflotte I commended the group for its good results in operations. The poor weather frequently prevented target location, so sometimes bombs were dropped at random. It was also recorded that a Dornier landed at the airfield with twenty SC-50 bombs on its rack, which was very risky and dangerous. There was no flying from 12th to 19th October, due to poor weather. Following an order, the group moved to Dno airfield on 20th October. They flew seven aircraft over to the airfield. Some of the personnel remained at Gostkino airfield. Several attacks on the Paizev-Rostan-Pola road were carried out on 23rd October. Although they were carried out from heights of 2,600 to 3,100m, one vehicle took a direct hit, and many bombs fell right next to the road. During the following night, a Do 17 aircraft was damaged in an aerial attack on the airfield. Many officers and non-commissioned officers were decorated with the Iron Cross, both First and Second Class, at the end of the month. On 26th October, five aircraft attacked a bridge on a river, and two bombs made direct hits. Lieutenant Telar's Do 17 aircraft was attacked by a Russian fighter, thereby damaging the engine. Although da-

Dno, kamo je preletjelo sedam zrakoplova. Dio osoblja i dalje je ostao na uzletištu Gostkino. Nekoliko napadaja na prometnicu Palzev Rostan Pola izvršeno je 23. listopada. Iako su izvršavani s visina od 2 600 do 3 100 metara, jedno je vozilo izravno pogodoeno, a više bombi palo je neposredno uza cestu. Sljedeće je noći zrakoplov Do 17 oštećen pri zračnom napadaju na uzletište. Željeznim križem I. i II. reda ponovno je potkraj mjeseca odlikovano više časnika i dočasnika. Pet je zrakoplova 26. listopada napadalo riječni most, a dvije su ga bombe izravno pogodile. Letjelicu Do 17 časničkog namjesnika Telara napao je ruski lovac, pri čemu je oštećen motor. Uspio se spustiti na uzletište. Dorniere, koji su 5. studenoga napadali selo Veretejka, napala su dva ruska lovca. Pet preostalih zrakoplova je 8. i 9. studenoga ponovno preletjelo u Solzy. Zbog kvarova na podvozju, 9. studenoga dva su oštećena. Zapovjednik Luftflote I. izdao je 11. studenog naredbu o povratku skupine u Hrvatsku. Dva dana poslije, osam zrakoplova Do 17 poletjelo je u Heiligenbeil. Poručnik Marić ostao je na uzletištu zbog zamjene motora. Pri preletu satnik Guma se prinudno spustio na livadu pokraj sela Laukzenia. Iz Heiligebeila sedam zrakoplova 26. studenog prelijeće u Thorn, gdje su dopunili zalihe goriva te nastavili let do Breslaua. Odatle 29. studenoga odlaze u Wienerneudstadt (osam zrakoplova). To je bilo posljednje odredište prije slijetanja u Zagrebu 30. studenoga 1942. Prvog dana prosinca 5. zrakoplovna skupina je svečano postrojena zbog Poglavnikova dolaska, koji je nakon govora odlikovao zapovjednika skupine potpukovnika Mikeca Željeznim trolistom III. stupnja. Dio osoblja promaknut je u više činove.

Tijekom boravka na Istočnoj bojišnici skupina je izvršila više od 1 300 borbenih letova, a pojedine posade imale su i do stotinjak akcija.

Strijelci iz posada zrakoplova Do 17 oborili su više od deset ruskih lovaca, a bombama je iz stroja izbačeno približno 245 ruskih oklopnih vozila, 307 topova i 581 bacač mina. Razoreno je mnogo objekata na zemlji, a njihov točan broj nije moguće utvrditi.

Prosječno su raspolagali sa pet do dvadeset zrakoplova Do 17 Z-2, a za prijevoz osoblja i opreme koristili su zrakoplove Ju 52 i W 34.

amaged, it managed to land at the airfield. Two Russian fighters attacked the Dorniers that were attacking the village of Veretejka, on 5th November. The five remaining aircraft flew over to Solzy again, on 8th and 9th November. Two were damaged on 9th November, owing to landing gear trouble. On 11th November, the Luftflotte I Commander issued an order regarding the group's return to Croatia. Two days later, eight Do 17 aircraft took off for Heiligenbeil. Lieutenant Marić remained at the airfield because his engine had to be replaced. While flying over, Captain Guma crash-landed in a meadow near the village of Laukzenia. On 26th November, seven aircraft flew from Heiligenbeil to Thorn, where they were supplied with more fuel, and continued their flight to Breslau. From here, they left for Wiener Neudstadt on 29th November (eight aircraft). This was the final destination prior to flying on to Zagreb, on 30th November 1942. On the first day of December, the 5th Air Force Group was formally paraded for the *Poglavnik's* review. After he made a speech, he decorated the Group Commander, Lieutenant-Colonel Mikec, with the Iron Trefoil, Third Class. Some personnel were promoted.

While they were stationed on the Eastern Front, the group performed more than 1,300 combat flights, and some of the crews carried out up to 100 operations.

The gunners of the Do 17 crews shot down more than ten Russian fighters and their bombs put out of action around 245 Russian armoured vehicles, 307 cannons, and 581 mortars. Many buildings on the ground were demolished. It is practically impossible to determine their exact number.

On average, they had at their disposal 5 to 20 Do 17 Z-2 aircraft, while Ju 52s and W34s were used for transporting personnel and equipment.



165. Dornier Do 17 Z-2 u standardnoj dvobojnoj maskirnoj shemi (RLM 70, RLM 71) gornjih površina te svijetloplavim donjim površinama (RLM 65) s nacrtanim znakom Legije ispod kabine. Spinner je obojen s tri boje, i to tamnozelenom, crvenom i bijelom.

165. A Dornier Do 17 Z-2 in the standard two-colour camouflage pattern (RLM 70, RLM 71) of the upper surfaces, and light-blue lower surfaces (RLM 65), with Legionary markings below the cockpit. The spinner is painted in three colours - dark green, red, and white.



166. Znak Legije na kojem se uočava bijeli obrub oko crvenih polja državnoga grba, te isprekidane crne crte tropleta.

166. Legionary markings on which there was a white border around the red squares of the state coat-of-arms, and dashed black lines on the braided knotwork design.

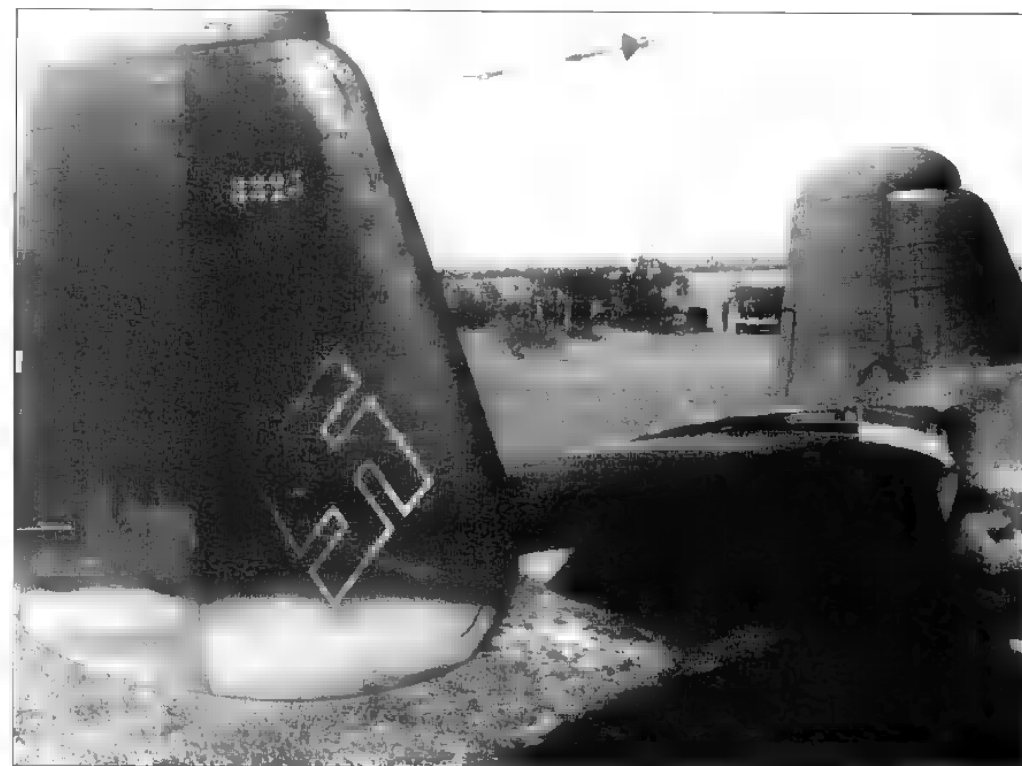


167. Do 17 Z-2 oštećen prigodom slijetanja na jednom od uzletišta u Rusiji.

167. A Do 17 Z-2 damaged during landing, at one of the airfields in Russia.



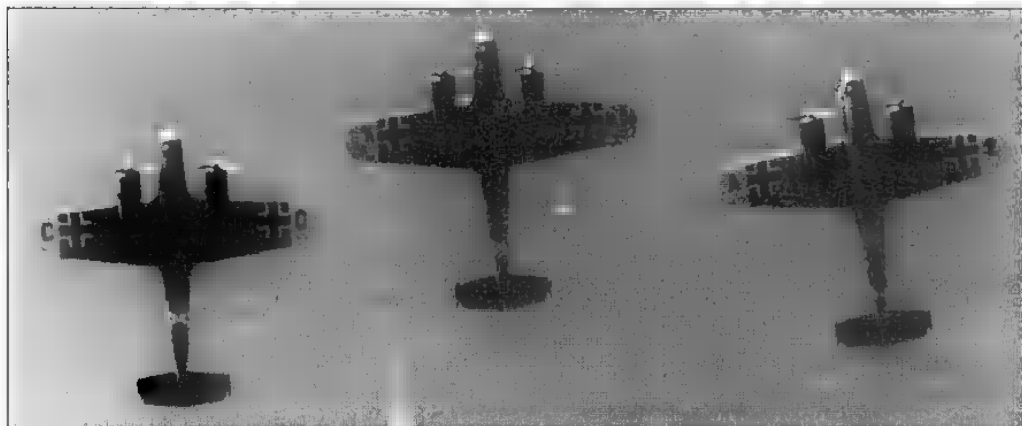
168. Znak Legije bez bijelog obruba na crvenim poljima državnoga grba. Crte tropleta su isprekidane.
 168. Legionary markings without the white border on the red squares of the state coat-of-arms. The lines of the braided knotwork design were dashed.



170. Stražnji dio Do 17 Z-2 na kojem se uočava broj "3325" na vertikalnom stabilizatoru
 170. The rear part of a Do 17 Z-2, on which the number "3325" can be observed on the rudder.



169. Dornier registrarske oznake A1+DZ oko trupa ima nacrtanu žutu traku manje širine nego primjerak s registrarskom oznakom A1+BZ.
 169. The Dornier with serial number A1+DZ had a yellow band around the fuselage which was not as wide as the one on the machine with serial number A1+BZ.



171. Hrvatski Dornieri u letu. Uočavaju se dijelovi registrarske oznake na žutim površinama krila. Obratiti pozornost na različitu visinu slova registrarske oznake.

171. Croatian Dorniers in flight. Parts of their serial numbers can be seen on the yellow surfaces of the wings. Note the different height of the letters of the serial number.



172. Zimska shema bojenja Do 17 Z-2. Preko osnovne maskirne sheme nanesea je bijela boja. Ispod nje se naziru tragovi dviju nijansi zelene boje. Donje površine su i u zimskoj shemi svijetloplave.

172. The winter colouring scheme of the Do 17 Z-2. White was painted over the basic camouflage scheme. Beneath the white, the remains of two shades of green can be discerned. The lower surfaces are light blue in the winter scheme too.



173. Do 17 Z-2 (A1+KZ) s trobojnim spinnerom bez kružne antene iznad kabine

173. A Do 17 Z-2 (A1+KZ) with a tri-coloured spinner, and without a circular antenna above the cockpit.



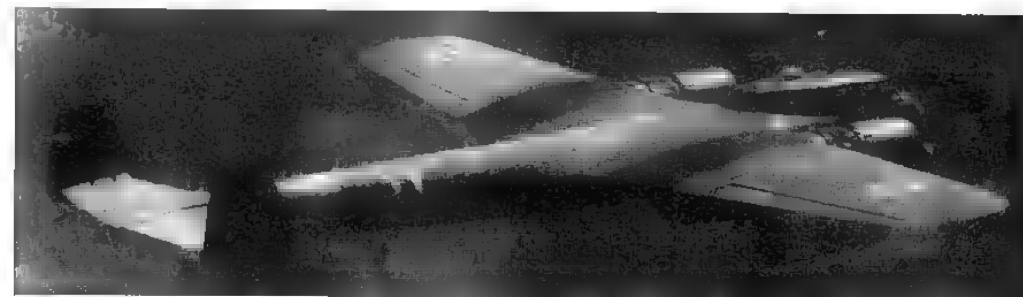
174. Na kabini ovog Dorniera Do 17 uočava se kružna antena koju neki primjerci nisu imali

174. On the cockpit of this Dornier Do 17, there was a circular antenna that certain machines did not have.



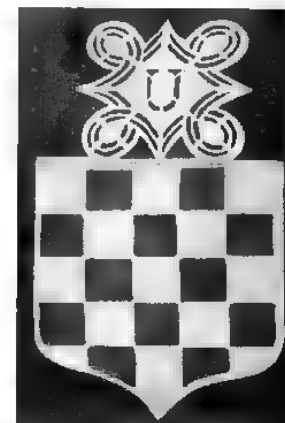
176. Rad mehaničara na motoru Do 17 Z-2

176. Mechanics working on a Do 17 Z-2 engine.



175. Do 17 Z-2 nepoznatog registarskog broja u letu iznad pošumljenog područja. Nema kružnu antenu već samo postolje za nju.

175. A Do 17 Z-2, with an unknown serial number, flying above a wooded area. There is no circular antenna, just a base for one.



177. Primjerak znaka Legije s isprekidanom linijom tropleta i bijelim rubom oko crvenih polja državnoga grba.

177. An example of Legionary markings with a dashed line on the braided Knot-work design and a white border around the red squares of the state coat-of-arms.



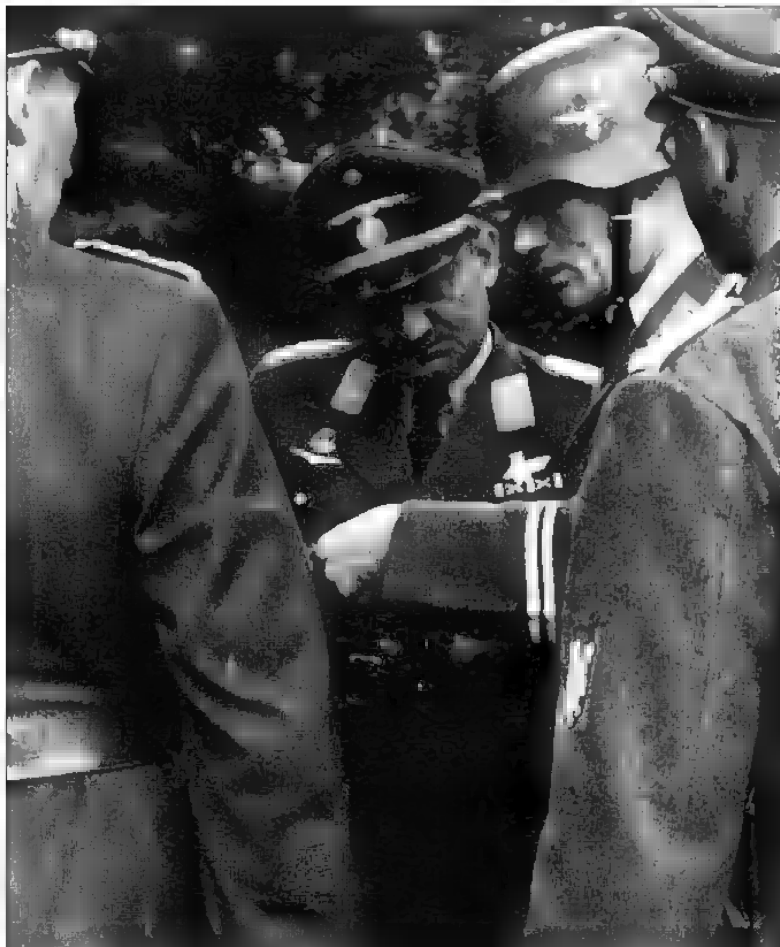
178. Žuta linija koju su Do 17 Z-2 imali na nosu tijekom operacija u Grčkoj, na ovom Dornleru je prebojena tamnom bojom.

178. On this Dornier, the yellow line that the Do 17 Z-2 had on the nose during operations in Greece, had been repainted in a dark colour.



179. Natpis "1000. ljet" pored znaka Legije napisan je na primjerku s registarskom oznakom A1+GZ, nakon što je postrojba izvršila 1000 borbenih zadaća

179. The inscription 1000.ljet (1000th flight), next to the Legionary markings, was drawn on this machine bearing the serial number A1+GZ, after the formation had carried out 1000 combat missions.



General V. Kren u razgovoru s hrvatskim časnicima
General V. Kren talking to Croatian officers.

VLADIMIR KREN, zrakoplovni general

(Rođen u Zagrebu 8. prosinca 1903., strijeljan 1948.)

Vojnu akademiju završava u Kraljevini Jugoslaviji (Beograd), ■ uoči rata nalazi se na zagrebačkoj zrakoplovnoj luci sa činom kapetana. 2. travnja 1941. sa zrakoplovom prelijeće na njemačku stranu. U Zagreb se vraća već 11. travnja iste godine te biva promaknut u čin generala. Umirovljen je 14. studenog 1943. U lipnju 1944. se ponovno vraća na istu dužnost koju obnaša do svršetka rata. Početkom svibnja 1945. s vojskom NDH povlači se u Austriju, odakle uspijeva prebjeći u Italiju. U srpnju 1947. pri pokušaju ukrcaja na brod za Argentinu uhvatile su ga britanske postrojbe te predale jugoslavenskim vlastima. 22. listopada 1948. osuđen je na smrt, a nakon što mu je 9. studenog iste godine žalba odbijena, strijeljan je na nepoznatome mjestu.

VLADIMIR KREN – Air Force General

(born 8th December 1903, in Zagreb; shot 1948)

He graduated from the Military Academy in the Kingdom of Yugoslavia (Belgrade), and with the rank of Captain, was stationed at Zagreb Air Base just before the war began. On 2nd April 1941, he flew an aircraft to the German side. He returned to Zagreb on 11th April of the same year and was promoted to the rank of Colonel, and appointed Commander of the Croatian Air Force. Not long after, he received the rank of General. On 14th November 1943 he retired. In June 1944, he returned to the same duty, which he performed until the end of the war. At the beginning of May 1945, together with the Croatian Army, he withdrew to Austria, from where he managed to defect to Italy. In July 1947, while attempting to board a ship to Argentina, he was arrested by British forces, and handed over to Yugoslav authorities. On 22nd October 1948, he was sentenced to death, and after his appeal had been turned down on 9th November of the same year, he was executed by a firing squad, in an unknown place.



FRANJO DŽAL, zrakoplovni pukovnik

(Rođen u Bihaću 9. travnja 1906., strijeljan u Beogradu krajem 1945.)

Osnovno školovanje i gimnaziju završava u Bihaću, a Vojnu akademiju u Beogradu 1924. Zvanje pilota-lovca stekao je još u Kraljevini Jugoslaviji. Početkom rata sa činom bojnika nalazi se u Nišu. U zrakoplovstvu NDH postaje zapovjednik 4. zrakoplovne lovačke skupine s kojom nakon obuke u Njemačkoj odlazi na Istočno bojište front. Prvu zračnu pobjedu ostvaruje 9. studenoga 1941., a do kraja boravka na ratištu priznato mu je obaranje ukupno 13 sovjetskih zrakoplova. Od ožujka 1945. obnaša dužnost glavarar stožera Zapovjedništva vojnog zrakoplovstva. Partizani ga zarobljavaju nakon sloma NDH-a. Vrhovni sud nove Jugoslavije ga 24. rujna 1945. osuđuje na smrt.

FRANJO DŽAL - Air Force Colonel

(born 9th April 1906, in Bihać; shot end of 1945, in Belgrade)

He completed his primary and secondary education in Bihać, and graduated in 1924 from the Military Academy in Belgrade. He became a fighter pilot in the Kingdom of Yugoslavia. At the beginning of the War he was in Niš, and had the rank of Major. In the Croatian Air Force he became Commander of the 4th Air Force Fighter Group, with which, after training, he left for the Eastern Front. He achieved his first aerial victory on 9th November 1941, and by the end of his presence on the battlefield, it was acknowledged that he had shot down thirteen Soviet aircraft. From 9th March 1945, he held the post of Chief of the Air Force Command Headquarters. The Partisans captured him after the demise of the Croatian Government, and on 24th September 1945, the Supreme Court of the new Yugoslavia sentenced him to death.



MATO DUKOVAC, zrakoplovni satnik

(Rođen u Surčinu 23. listopada 1918., umro u Torontu u rujnu 1990.)

Pilotsku školu završio je uoči Drugoga svjetskog rata u Pančevu. Raspadom Kraljevine Jugoslavije, priključuje se novoosnovanom hrvatskom zrakoplovstvu te ga se raspoređuje u Personalni odsjek Zapovjedništva zrakoplovstva. Tijekom ljeta 1941. nalazi se u Vojnoj jedriličarskoj školi za visoko jedrenje u Svetoj Nedelji. Nakon toga odlazi s drugim pilotima na obuku u Njemačku (Fürth), gdje dobiva zvanje pilota-lovca. Od sredine listopada 1942. u sastavu Hrvatske zrakoplovne legije bori se na ratištima Sovjetskog Saveza. Ukupno mu je priznato obaranje 40 protivničkih zrakoplova. 20. rujna 1944. zrakoplovom je preletio na sovjetsku stranu, a od studenoga iste godine nalazi se u sastavu partizanskoga zrakoplovstva. Postaje instruktor letenja u pilotskoj školi Jugoslavenskog vazduhoplovstva u Pančevu. Krajem veljače 1945. premješten je u pilotsku školu u Zemunik kraj Zadra. S tog uzletišta u kolovozu 1945. prelijeće u Italiju, odakle, nakon višemjesečnog boravka u logorima oko Modene i Napulja, odlazi u Kanadu gdje zasniva obitelj i živi do smrti.

MATO DUKOVAC - Flight Captain

(born 23rd October 1918, in Surčin; died September 1990, in Toronto)

Just before the Second World War, he graduated from the Pilot School in Pančevo. With the downfall of the Kingdom of Yugoslavia, he joined the newly formed Croatian Air Force, and was deployed to the Personnel Department of the Air Force Command. During the summer of 1941 he was posted to the Military Glider School, for high-altitude flying, at Sveta Nedjelja. After that, he left with other pilots, to be trained in Germany (Fürth), where he qualified as a fighter pilot. From the middle of October 1942, as a part of the Croatian Air Force Legion, he fought above the battlefields of the Soviet Union. He had a total of forty acknowledged downed enemy aircraft. On 20th September 1944, he flew an aircraft over to the Soviet side, and from November of the same year, joined the Partisan Air Force. He became a flying instructor in the Pilot School of the Yugoslav Air Force in Pančevo. Towards the end of February 1945, he was transferred to the Pilot School in Zemunik, near Zadar. In August 1945, he took off from this airfield, and flew to Italy. After spending many months in camps around Modena and Naples, he left for Canada, where he raised a family and lived the rest of his life.



CVITAN GALIĆ, zrakoplovni satnik

(Rođen u selu Gorica pokraj Ljubuškoğa 29. studenoga 1909., poginuo 5. travnja 1944).

Godine 1927. unovačen je u pješaštvo, a kao odličan učenik na vlastitu zamolbu premješten je u zrakoplovstvo. Pilotsku školu završava u Mostaru, a po završetku sluđbuje u Skopju. Godine 1932. nastavlja školovanje u Lovaačkoj pilotskoj školi u Zemunu, gdje je određeno vrijeme bio i nastavnik letenja. Travanjski rat zatekao ga je na pomoćnom uzletištu Kosor pokraj Mostara, gdje se nalazila III. pilotska škola. Zrakoplovom prelijeće na uzletište kod Sinja i stavlja se na raspolaganje hrvatskom zrakoplovstvu. Dobrovoljno se prljavio u sastav 4. zrakoplovne lovačke skupine, koja je dio novoosnovane Hrvatske legije. Zajedno s drugim pilotima odlazi na školovanje u Njemačku (Fürth), nakon čega je upućen na Istočnu bojišnicu u sastavu 10. jata. Krajem studenoga 1941. postiže svoju prvu zračnu pobjedu lovcem Bf 109 E. U nizu teških zračnih okršaja sa sovjetskim lovcima, broj njegovih pobjeda se povećava,

a postrojba se često seli na razna uzletišta, prateći napredovanje njemačke vojske. U prosincu 1942. ponovno se nalazi na ratištu na području poluotoka Krima. U travnju je već postigao svoju 32. pobjedu, oborivši, među ostalim, i najmodernije ruske lovce Mig-3 i britanske Spitfire. Odlikovan je nizom hrvatskih i njemačkih odličja. Posljednju zračnu pobjedu postiže 19. rujna 1943., kada u jednom danu postiže dvije pobjede. U njegovu službenom skoru ubilježeno je 38 priznatih pobjeda i sedam nepriznatih. Ukupno je izvršio 439 letova. Po povratku u Hrvatsku nalazi se na Borongaju u sastavu 11. skupine. Nakon toga premješten je na uzletište Zalužani u 5. luku, gdje zapovijeda 23. jatom. Nakon pogibije, posmrtno je promaknut u čin zrakoplovnog satnika s pravom na naslov viteza.

CVITAN GALIĆ - Flight Captain

(born 29th November 1909, in Gorica, near Ljubuški; killed in action 5th April 1944)

In 1927 he was recruited into the Infantry, and as an excellent student, was transferred to the Air Force at his own request. He completed the Pilot School at Mostar, and after graduating, served in Skopje. In 1932, he continued his training in the Fighter Pilot School at Zemun, where he was a flying instructor for a while. The war found him posted at the Kosor auxiliary airfield, near Mostar, where the 3rd Pilot School was located. He flew over in an aircraft to the airfield at Sinj, and put himself at the disposal of the Croatian Air Force. He volunteered for the 4th Air Force Fighter Group, which was part of the newly formed Croatian Legion. He was trained in Germany (Fürth), together with other pilots, and then sent to the Eastern Front with the 10th Squadron. Towards the end of November 1941, he achieved his first aerial victory, with a Bf 109 E fighter. In a series of fierce aerial encounters with Soviet fighters, the number of his victories increased, and the formation often had to move to different airfields according to the advance of the German Army. In December 1942, he was in action again in the area of the Crimean peninsula. In April, he had already achieved his thirty-second victory, shooting down, among others, the most modern Russian fighters, the Mig-3, and the Spitfire. He was decorated with a series of Croatian and German decorations. He accomplished his final aerial victory on 19th September 1943, when he achieved two victories in one day. His official score stands at thirty-eight acknowledged, and seven unacknowledged victories. He performed a total of 439 flights. Upon returning to Croatia, he was stationed at Borongaj in the 11th Group. After that, he was transferred to Zalužani airfield at the 5th Air Base, where he commanded the 23rd Squadron. After he was killed, he was posthumously promoted to the rank of Flight Captain, with the title of knight.

Službene odredbe ■ označavanju zrakoplova

U broju 9. "Vjestnika vojnih naredaba i zapovijedi za cjelokupnu oružanu snagu NDH", od 24. svibnja 1941., utvrđen je sljedeći sustav označavanja:

- Zastava Zračnih snaga NDH sastoji se od 25 pravokutnih polja bijele i crvene boje, poredanih naizmjenice u pet redova, tako da je bijelo polje u prvom gornjem redu prvo. Pravokutnici su omjera visine prema širini 2:3. Zastava je obrubljena plavim rubom. U gornjem redu u prva dva polja ucrtan je orao crno-srebrne boje. Zastava se imala koristiti na Zapovjedništvu Zračnih snaga i na svim zrakoplovnim lukama od izlaska do zalaska sunca.
- Oznaka državnosti na zrakoplovima NDH je štit s 25 kvadratnih polja bijele i crvene boje (boja krvi) poredanih naizmjenice u pet redova, tako da je početno polje bijele boje. Oznaka se nosi na svim zrakoplovima i to:
 - na gornjem desnom krilu oznaka u omjeru dubine krila 1:5
 - na donjoj strani krila s desne i lijeve strane oznaka u omjeru dubine krila 1:2
 - na vertikalnom stabilizatoru s desne strane oznaka u omjeru istog 1:2.

"Vjestnik Ministarstva oružanih snaga" od 27. studenoga 1943. u broju 48. donosi dopunu uredbe o označavanju. Dopunjuje se dio koji se odnosi na izgled orla na zastavi. Navodi se da je orao izvezen srebrnom niti i osjenjen, a crnom bojom obrubljen.

Zastava je obrubljena plavim obrubom širine jedne šestine visine pravokutnika. Nevojnički zrakoplovi imaju štit s 25 polja naizmjenice poredanih, a prvo je polje bijelo. Odnos visine prema širini polja je u omjeru 2:3. Cijeli znak obrubljen je plavim rubom širine jedne šestine visine pravokutnika. Za tu je vrstu letjelica propušteno navesti na kojim se položajima postavljaju znakovi.

"Vjestnik Ministarstva oružanih snaga" u broju 11. od 24. veljače 1945. donosi potpuno nov sustav označavanja zrakoplova. Vojne letjelice kao oznaku pripadnosti nose crni trolist i državni grb. Trolist je crne boje i na bijeloj je podlozi, izrađenoj u obliku istokrakog križa. Križ zaprema 2/3 dubine krila, odnosno cijelu visinu trupa. Rubovi krakova križa obrubljeni su crnim rubom širine 1/10 stranice kraka križa.

Official Regulations on Aircraft Markings

In the 9th edition of the "Vjestnik vojnih naredaba i zapovijedi za cjelokupnu oružanu snagu NDH" (Bulletin of Military Orders and Commands for the Entire NDH Armed Forces) of 24th May 1941, the following marking system was established:

- The flag of the Croatian Air Force consists of twenty-five white and red rectangles, arranged alternately in five rows, so that the first rectangle in the top row is white. The ratio of the rectangles' height to width is 2:3. The flag has a blue border. In the top row, in the first two rectangles, there is a black-silver eagle. The flag must be used on the Air Force HQ and on all air bases, from sunrise to sunset.
- The national marking on Croatian aircraft is a shield with twenty-five white and red (the colour of blood) squares arranged alternately in five rows, so that the first square is white. All aircraft bear the marking on:
 - the upper right wing, the ratio of the marking to the wing's cross section is 1:5
 - the lower surface of the left and right wing, the ratio of the marking to the wing's cross section is 1:2
 - the right side of the fin, the ratio of the marking to it is 1:2

Number 48 of the "Vjestnik Ministarstva oružanih snaga" (Bulletin of the Department of Armed Forces) of 27th November 1943, announced an amendment to the marking regulations. The part referring to the picture of the eagle on the flag was supplemented. It is stated that the eagle is embroidered in a silver colour and shadowed, and that it is edged in black.

The flag is edged with a blue border, the width of which is one sixth of the rectangle height. Non-military aircraft have a shield with twenty-five rectangles, that are arranged alternately, with the first being white. The ratio of the height to the width of the rectangles is 2:3. The whole marking is edged with a blue border, the width of which is one sixth of the rectangle height. For this type of aircraft, the places where the markings are placed were omitted.

Number 11 of the "Vjestnik Ministarstva oružanih snaga" (Bulletin of the Department of Armed Forces) of 24th February 1945, announces a completely new aircraft marking system. As a national marking, military aircraft carry a black trefoil and the state coat-of-arms. The trefoil is black, and rests on a white background, that has the shape of an isosceles cross. The cross takes up 2/3 of the wing's cross

Na vojnim zrakoplovima trolist se nalazi:

- na gornjoj i donjoj površini obaju krila kod jednokrila, a na gornjoj površini gornjih krila i donjoj površini donjih krila kod dvokrila, i to u sredini vanjske (prve) trećine krila, a u veličini koja zahvaća 2/3 dubine krila
- na trupu je smješten simetrično u sredini čiste površine trupa s obje strane, a na trupu je usmjeren prema gore.

Državni grb se nalazi s obje strane vertikalnog stabilizatora na čvrstom dijelu, a veličine je 2/3 te površine i usmjeren je prema gore.

U zapadnoj literaturi navodi se podatak da se taj način označavanja koristi već od jeseni 1944. na zrakoplovima hrvatskih pilota koji su se nalazili na izobrazbi u Njemačkoj (Hrvatska izobrazbena skupina).

Ostale oznake na zrakoplovima

Registarski brojevi. – Registarski su se znakovi na zrakoplovima ispisivali u različitim visinama i stilovima. U prvoj polovini 1941. godine bili su crni i visoki 10 cm, na objema stranama trupa. U narednom razdoblju visina brojeva je povećana na 30 do 70 cm, a osim u crnoj, pojavljuju se i u žutoj boji. Pojedini su zrakoplovi imali i bijele eskadrilske brojeve na repu (jednoznačenkast ili dvoznačenkast). U 1. pilotskoj školi u Borovu na letjelicama BÜ 131, osim registarskog broja, na trupu su bili i crni ili bijeli brojevi na poklopcima motora (npr. crni "2", "8", "9", "12", "13", bijeli "7"...). U istoj školi, pokraj registarskog broja na trupu katkad su se na zrakoplovima nalazili i dvoznačenkasti bijeli ili žuti brojevi, ali mnogo veći nego na Fizerima FP. 2 (npr. 11).

Druge oznake. – Mnogi zrakoplovi nosili su nacrtane crteže-grbove na različitim položajima. Često su označavali pojedinu zrakoplovnu luku. Točna identifikacija nije još završena niti su poznati svi grbovi. Zagrebačka luka koristila je crtež srednjovjekovnog dvorca (po svemu sudeći tvrđave u Sisku), banjalučka simbol lasice između dviju rijeka, sarajevska simbol kneževe ruke koja drži mač, a mostarska vjerojatno dalmatinski grb koji se sastojao od tri lavlje glave. Na tipu Be-51 snimljenom u Borovu 1943. godine, nalazi se crtež lastavice raširenih krila tamne boje. Crtež stilizirane životinjske glave (vjerojatno koze), sa žutim (ili bijelim) isprekidanim pravokutnim obrubom nalazi se na trupu ispod kabine zrakoplova Bf 109 G-10 koji

section, i.e. the whole fuselage height. The edges of the bars to the cross are bordered with a black border, the width of which is 1/10 of the cross's bars.

On military aircraft the trefoil is located:

- On the upper and lower surface of both wings for monoplanes, and on the upper surface of upper wings, and the lower surfaces of lower wings, for biplanes, in the middle of the outer (first) third of the wings, taking up 2/3 of the wing's cross section;
- On the fuselage, symmetrically in the middle of the fuselage area on both sides and on the fuselage it is orientated upwards.

The state coat-of-arms is located on both sides of the fin, taking up 2/3 of this area, and is orientated upwards.

Western bibliographies state that this way of marking was in use as early as the autumn of 1944 on aircraft of Croatian pilots which were undergoing training in Germany (The Croatian Educational Group).

Other Aircraft Markings

Serial numbers – These were written on the aircraft in various heights and styles. In the first half of 1941, their height was 10cm, and they were black. They were located on both sides of the fuselage. On some aircraft, white squadron numbers on the tail (one or two-digit) are noticeable. In addition to the serial number, the BÜ 131 from the 1st Pilot School at Borovo had black and white numbers on the fuselage – on the engine cowling (e.g. black "2", "8", "9", "12", "13", white "7", etc.). In the same school, sometimes the aircraft had a two-digit white, or yellow number, next to the serial number on the fuselage, but far larger than on the Fizer FP. 2s (e.g. 11).

Other markings – Many aircraft bore drawn emblems/coats-of-arms in various positions. They often denoted a certain air base. Precise identification has not been completed yet, and not all coats-of-arms are known. Zagreb Air Base had an emblem of a castle from the 11th century; the one in Banja Luka had a symbol of a weasel between two rivers; Sarajevo had a symbol of a knight's hand holding a sword; and Mostar had markings of three lion heads probably symbolising Dalmatia. The Be-51 type recorded in Borovo in 1943, had an emblem of a swallow with spread-out,



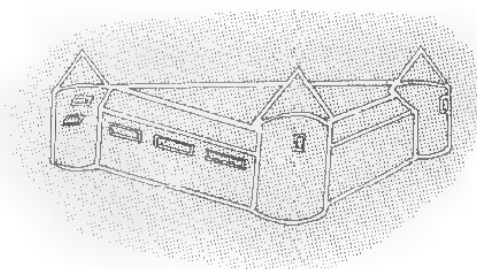
184. SAIMAN 202, s tri okrunjene lavlje glave, oznakom zrakoplovne luke u Mostaru.

184. A SAIMAN 202 with the markings of the air base in Mostar, three crowned lion heads.

dark-coloured wings. There is an emblem of a stylised animal's head (probably a goat's) with a yellow (or white) intermittent rectangular border on the fuselage, below the cockpit, of a Bf 109 G-10 aircraft that had defected to Falconara. Fizir FP. 2s sometimes had a white marking in the shape of the letter "V" drawn over the serial number on both fuselage sides. The exact meaning of this has not been completely explained, but it is supposed that it denoted a reconnaissance aircraft. Aircraft of German origin retained some of their own inscriptions (e.g. "Bücker", et al.)

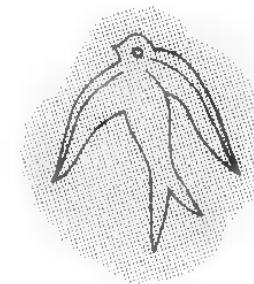
Recognition Markings – Following a German order in 1942, Croatian aircraft were to receive high-visible yellow details, i.e. bands around the fuselage and yellow wingtips, that were mostly painted yellow only on the lower surface. In addition to yellow lower surfaces of the wingtips, the S. 79 bomber had a yellow front to its engine cowling, and a yellow rudder. The Bf 109 G types that were used in Croatia had yellow rudders, "nose" tips, and lower wing surfaces.

The painting of the lower part of the engine cowlings became obligatory in 1943. Following an order of 20th July 1944, all yellow-coloured parts, and other bright markings, were to be removed. However, aircraft with yellow details could still be found after this period.



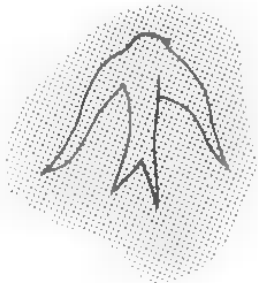
Jedna od izvedaba znaka 1. zrakoplovne luke Zagreb. Znak je bijele boje na podlozi zrakoplova FL. 3, reg. br. 8006.

One of the variant markings of the 1st Air Base Zagreb. The outline of these markings was always white, as on FL. 3, Serial number 8006.



Znak pilotske škole u Borovu. Crne je boje na podlozi zrakoplova BE-51 BETA MINOR

One of the variant markings of the Pilot School at Borovo. The outline of these markings was always black, as on this BE-51 BETA MINOR.



Druga inačica znaka pilotske škole u Borovu. Crne je boje na podlozi zrakoplova Bü 131, reg. br. 7510.

Another variant of the markings of the Pilot School at Borovo, from the Bü 131 aircraft, serial number 7510.

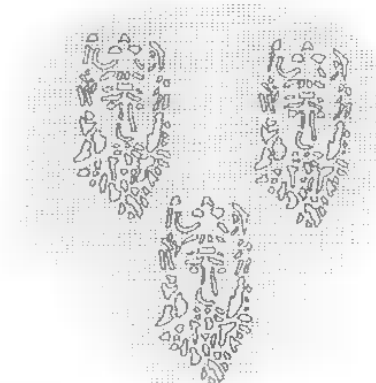
je prebježao u Falconaru. Fiziri FP. 2 pokatkad su na obje strane trupa preko serijskog broja imali napisanu bijelu oznaku u obliku slova "V". Njezino točno značenje nije u potpunosti razjašnjeno, ali se pretpostavlja da označava izvidnički zrakoplov. Na letjelicama njemačkog podrijetla bili su i neki njemački natpisi (npr. "Bücker"...).

Znakovi raspoznavanja. – Zrakoplovi NDH, na osnovi njemačke naredbe iz 1942. godine, dobili su uočljivo obojene žute detalje – trake oko trupa i žuto obojene vrhove krila. Krila su najčešće bila obojena žutom bojom samo s donje strane. Bombarder S. 79 imao je žute i prednje dijelove poklopca motora, kao i pokretni dio vertikalnog stabilizatora uz donje površine vrhova krila. Tipovi Bf 109 G, korišteni u samoj Hrvatskoj, imali su žuto bojena kormila pravca, vrh "nosa" i donje dijelove krila.

Bojenje donjeg dijela poklopca motora uvedeno je kao obvezno 1943. godine. Naredbom od 20. srpnja 1944. valjalo je ukloniti sve žuto obojene dijelove, kao i druge svijetle oznake. Unatoč tome, bilo je zrakoplova koji su imali žute detalje.

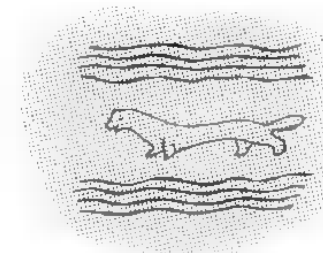
Bojenje i označavanje pojedinih tipova zrakoplova

Messerschmitt Bf 109 E. – Na Istočnom bojištu hrvatski su se piloti koristili inačicama: E-3, E-4 i E-7. Osnovna shema bojenja je standardna za Luftwaffe u to vrijeme. Hrbat trupa te gornje površine krila i horizontalnih stabilizatora bojeni su sivozeleno (RLM 74, Graugrün) i sivoljubičasto (RLM 75, Grauviolet), a donje površine i bokovi trupa obojeni su svijetlomodro (RLM 76, Lichtblau). Na bokovima trupa i vertikalnom stabilizatoru nanese su mrlje svijetlozelene i svijetloljubičaste (RLM



Znak 3. zrakoplovne luke u Mostaru. Bijele je boje na podlozi zrakoplova.

The markings of the 3rd Air Base at Mostar, which seem to have always been white.



Znak 5. zrakoplovne luke u Banjoj Luci. Znak je crtan u dvije inačice, crnom ili bijelom bojom na podlozi zrakoplova.

The markings of the 5th Air Base at Banja Luka, which were applied in either black or white.

The Colouring and Marking of Individual Aircraft Types

Messerschmitt Bf 109 E – On the Eastern Front, Croatian pilots used the versions: E-3, E-4, and E-7. The basic colouring scheme was the standard Luftwaffe one of that time. The upper fuselage and the upper surfaces of the wings and fin were painted in colours: RLM 74 Graugrün and RLM 75 Grauviolet, while the lower surfaces and the fuselage sides were painted in RLM 76 Lichtblau. There were blotches in RLM 74 and 75 on the fuselage sides and on the fin. In addition to this combination, a somewhat older scheme, originating from the time of fighting in France and England, was used on some aircraft. These colours were used: RLM 71 Dunkelgrün and RLM 02 Grau on the upper surfaces, and RLM 65 Hellblau on the lower surfaces. The blotches on the fuselage and tail are the same colour as the upper surfaces (RLM 71 and 02). Since it is difficult to make out similar shades of colour on black and white photographs, there is a possibility that RLM 70 Schwartzgrün was also used instead of RLM 71. This assumption is based on the fact that this combination of colours had been used previously (e.g. E-3 from JG 2, or E-4 Wnr. 2782 that was shot down above Biggin Hill on 30th August 1940). Two machines had very non-

74 i 75). Osim te kombinacije, na pojedinim je zrakoplovima korištena i nešto starija shema iz doba borbi u Francuskoj i Engleskoj. Korištene su tamnozeleno (RLM 71, Dunkelgrün) i siva (RLM 02, Grau) boja na gornjim površinama te svijetloplava (RLM 65, Hellblau) na donjim površinama. Mrlje na trupu i repu su u bojama gornjih površina (RLM 71 i 02). Kako je na crno-bijelim fotografijama teško razlikovati slične nijanse boja, postoji mogućnost da je umjesto tamnozelene (RLM 71) korištena i crnozeleno (RLM 70, Schwartzgrün). Pretpostavka je proistekla iz činjenice da se i ta kombinacija boja koristila u prijašnjem razdoblju (npr. E-3 iz JG 2 ili E-4 W.Nr. 2782 koji je srušen iznad Biggin Hilla 30. kolovoza 1940.). Dva su primjerka imala vrlo ne-standardne sheme bojenja. Jedan od njih, koji je nosio zeleni broj "2" na trupu, bio je sveobuhvatno obojen svjetlomodrom (RLM 76) bojom, na koju su se na gornjim i bočnim površinama nanijele zmijolike šare tamnije boje, vjerojatno (RLM 75). Drugi primjerak, koji je nosio zeleni broj "17", na gornjim je površinama bio tamnozelen i siv (RLM 71 i 02). Specifičan je po tome što su se iste boje spuštale sve do dna trupa, a bile su i na vertikalnom stabilizatoru. Donje su površine kao i kod drugih letjelica svijetlomodre (RLM 76). Na svim primjercima poklopac motora, donje površine vrhova krila i traka oko trupa su žute (RLM 04, Gelb). Zrakoplov E-3 s brojem "17" karakterističan je i po položaju žute trake, koja je odmah iza kabine, dok je kod ostalih spuštena do repa. Njemačke oznake (križevi) bile su na standardnim mjestima. Detalj po kojem su se hrvatski Bf 109 razlikovali od ostalih bio je legionarski znak ispod kabine s obiju strana trupa. Znak se sastojao od crveno-bijelog hrvatskog grba, iznad kojeg je na bijeloj podlozi nacrtan crni troplet s crnim slovom "U". Na bočnim stranama hrvatskoga grba nalazila su se bijela stilizirana krila. Krila i grb obrubljeni su tankom crvenom crtom. Prije no što je dobiveno odobrenje da se na zrakoplov može nacrtati ta oznaka, na nekim je primjercima osoblje ispod kabine kredom crtalo slične oznake i slovo "U". Na dijelu letjelica oznake pobjeda crtale su se bijelom bojom na pokretnom dijelu vertikalnog stabilizatora (npr., zeleni "15" – 11 oznaka pobjeda).

Poznati brojevi na trupovima hrvatskih tipova Bf 109 E jesu: zeleni "2", zeleni "15", zeleni "9", zeleni "4", crni "9", zeleni "17", "10", "11"...

Messerschmitt Bf 109 G. – Hrvatski piloti na istočnom bojištu letjeli su na inačicama G-2, G-4, G-5 i G-6. Osnovna shema bojenja je potpuno standardna za to vrijeme, jer su se za gornje površine trupa i krila koristile boje (RLM 74 i 75), a za donje i bočne površine svijetlomodra (RLM 76). Žute površine na poklopcu motora bojile su se na dva načina. Na primjercima G-2 žuto je obojen najčešće cijeli poklopac, a na G-5 i G-6 samo donje površine do visine ispušnih cijevi. Žutu traku oko trupa imali su svi primjerci. Na bokovima trupa nanosene su mrlje (RLM 74 i 75). Boje

standard colouring schemes. One of them, that bore a green number "2" on its fuselage, was coloured overall in colour RLM 76 over which, snake-like tinges in a darker colour, probably RM 75, had been drawn on the upper and lateral surfaces. The other machine, bearing the green number "17", had colours RLM 71 and 02 on its upper surfaces, and is specific in that the colours go right down to the bottom of the fuselage and cover the fin too. RLM 76 was used on its lower surfaces as on the other aircraft. On all machines, the engine cowlings, the lower wingtip surfaces, and the bands around the fuselage, were coloured in RLM 04 Gelb. Aircraft E-3, with the number "17", was characterised by the position of its yellow band, right behind the cockpit, while on others, it went down to the tail. German crosses were found in the standard positions. A detail that distinguished the Croatian Bf 109 from the rest, was the Legionary markings positioned under the cockpit on both fuselage sides. The markings consisted of the red and white Croatian coat-of-arms, above which there was a red braided knotwork design with a black letter "U", on a white background. There were stylised white wings on the lateral sides of the Croatian coat-of-arms. The wings and the coat-of-arms were edged with a thin red line. Before permission was obtained for drawing this emblem on individual aircraft, the personnel would draw a similar emblem, and a letter "U", in chalk, under the cockpit on certain machines. On some aircraft "kill" markings were written in white on the rudder (e.g. green "15" had eleven "kill" markings).

The numbers on fuselages of Croatian Bf 109 E types that are known are: a green "2", a green "15", a green "9", a green "4", a black "9", a green "17", "10", "11", (colours not known).

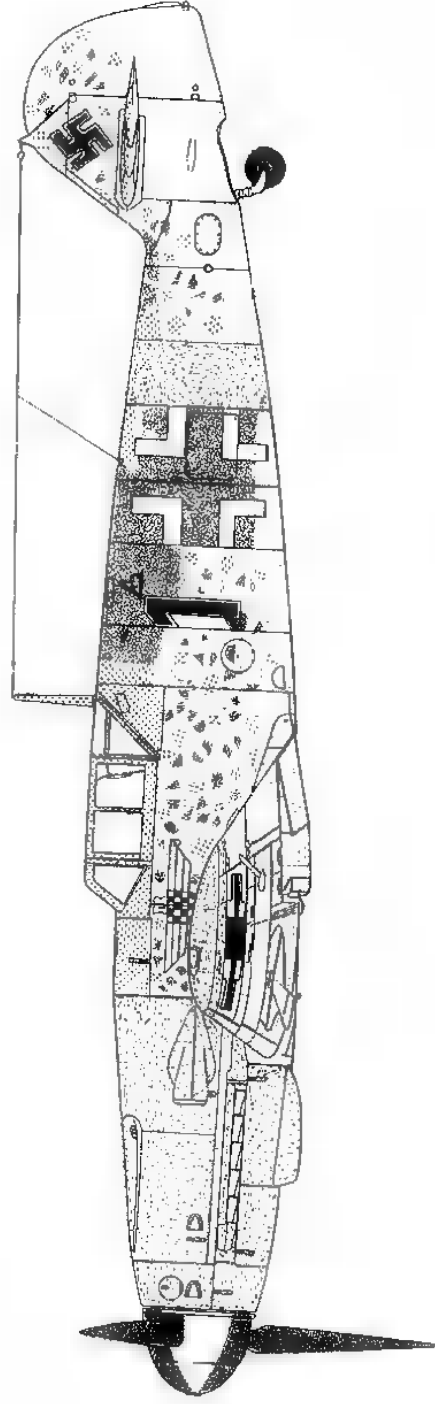
Messerschmitt Bf 109 G – Croatian pilots on the Eastern Front flew on versions: G-2, G-4, G-5, and G-6. The basic colouring scheme was totally standard for that time, because colours RLM 74 and 75 were used for the upper surfaces of the fuselage and wings, and RLM 76 for the lower and lateral surfaces. The yellow surfaces of the engine cowlings were painted in two ways. On G-2s, usually the entire cowlings was painted yellow, and on G-5s and G-6s, only the lower surfaces, to the height of the exhaust pipes, were yellow. All machines had a yellow band around the fuselage. Blotches in RLM 74 and 75 were painted on the lateral sides of the fuselage. The colours on the propeller spinners varied. Most of them were coloured in RLM 70 (2/3 of the surface) and in white. Totally white ones can be found, as well as black ones with a white spiral, and tricoloured ones (the colours were divided vertically, the tip of the spinner was white, while it is difficult to reconstruct the other two colours). The Legionary markings on the G-versions were often varied in their

na spinnerima elisa su se mljenjale. Najveći dio ih je bojen crnozelenom (RLM 70) (2/3 površine) i bijelom bojom, a bilo je i potpuno bijelih, crnih s bijelom spiralom, te trobojnih (okomito podijeljenih boja tako da je vrh spinera bijel, a druge dvije boje je teško odrediti). Znak Legije na G-inačicama često je promjenljiv u svojoj izvedbi. Na nekim primjercima nije nacrtan crveni obrub oko krila i grba, kao ni crte tropleta te slovo "U". Nekima su crtane crvene crte na krilima, ali ne i crte tropleta. Iako se u većini objavljenih crteža kao boja krila koristi samo bijela, autori smatraju da je vrlo vjerojatno za krila korištena i srebrna. Zaključak je izveden iz činjenice što je na dijelu fotografija boja krila nešto tamnija nego bijela polja u hrvatskom grbu te na temelju teksta objavljenog u časopisu "Hrvatska krila" iz tog vremena, gdje se navodi srebrna boja na krilima. I na G-inačicama negdje se mogu vidjeti oznake pobjeda na repu (npr. na G-2 s crnim brojem "5" – osam oznaka pobjeda). Neki su primjerci letjeli bez legionarskog znaka (npr. G-6 W.Nr.18497 žuti "13"). Njemački su križevi na standardnim mjestima. Zanimljivo je primijetiti da se, osim inačica križa na trupu, koje imaju široki bijeli obrub ili bijeli obrub s tankim crnim porubom, na dva primjerka G-2 (brojevi "10" ili "11") nalaze samo bijele površine na osnovnoj boji podloge zrakoplova, bez crne unutrašnjosti križa. Poznati brojevi na G-inačicama jesu: "<1", "<<1", bijeli "5", žuti "13", žuti "12", crni "10", crni "4", crni "5", crni "6", crni "7", "8", "11", "2", "17" i "9". Dio zrakoplova po dolasku u postrojbu određeno je vrijeme obavljao borbene letove s tvorničkim registarskim oznakama (npr. G-2 GT+WM). Te su se registarske oznake katkad nazirale ispod maskirnih boja.

Inačice G-10 i G-14 korištene su i u Hrvatskoj. Bojeni su standardnom shemom za posljednju fazu rata – gornje površine smedeljubičastom (RLM 81, Brauniviolet) i tamnozelenom (RLM 82, Hellgrün), te svijetlomodrom (RLM 76) na donjim i bočnim površinama. Boja donjih površina prelazi vrlo visoko na trup sve do hrpta. Na bočnim su stranama nanese smedeljubičaste i tamnozelene mrlje (RLM 81 i 82). Početak nosa, donje površine vrhova krila i pokretni dio vertikalnog stabilizatora su žuti. Žuta traka oko trupa je prebojena zelenom bojom. Pojedini izvori navode i shemu u kojoj se za gornje površine koriste boje (RLM 75 i RLM 82). Kao državna oznaka na tim je inačicama crni trolist u bijelom križu, a na repu je državni grb s tropletom i crnim slovom "U", koje je pokatkad izbrisano. Ta je oznaka i na nepokretnom dijelu vertikalnog stabilizatora. Tip G-10 sa crnim brojem "4" ispod kabine ima nacrtanu konturu životinjske glave (vjerojatno koze), uokvirenu u pravokutniku s isprekidanom crtom. Crtež je nacrtan na osnovnoj boji trupa. Vjerojatno je žute ili bijele boje. Drugi poznati brojevi tih inačica jesu: "2103", "2105", i crni "10".

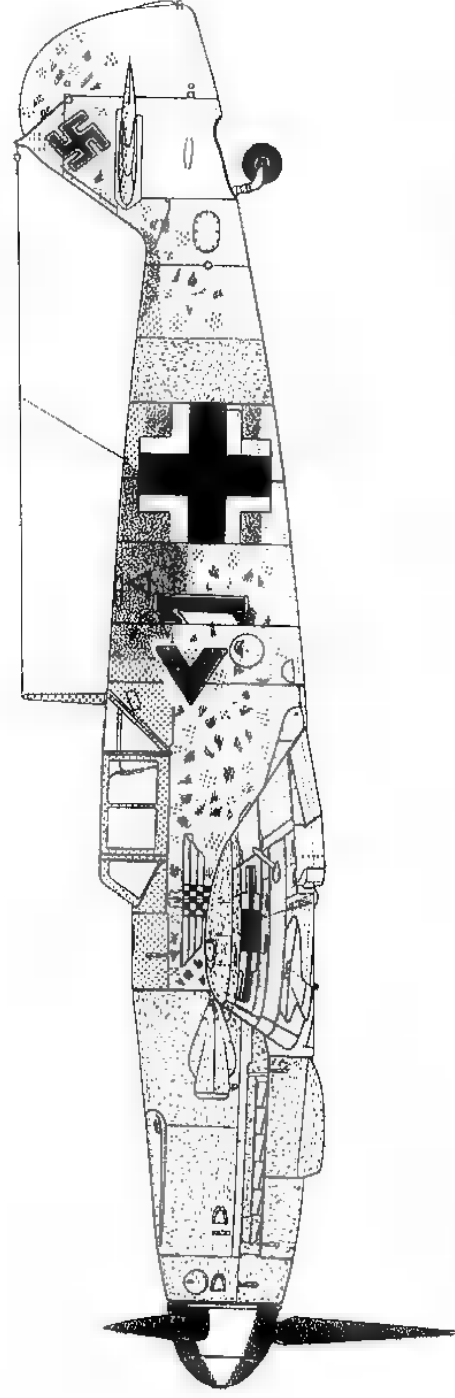
workmanship. Some machines did not have the red edging around the wings and coat-of-arms, nor the lines of the braided knotwork design, and letter "U". Some only had red lines on the wings and not on the braided knotwork design. Although most published drawings show only white coloured wings, the author believes that silver was most probably used as well. This is concluded from the fact that on some photographs the colour of the wings is darker than the white squares on the Croatian coat-of-arms, and on the basis of an article in a journal of that time, "Hrvatska krila" (Croatian Wings), in which a silver colour on the wings is mentioned. Some of the G-versions also have "kill" markings on the tail (e.g. one G-2 had 5 to 8 black "kill" markings). Some machines flew without Legionary markings (e.g. G-6 Wnr. 18497, with a yellow "13"). German crosses can be found in the standard positions. It is interesting to note that in addition to the cross versions on the fuselage that had a wide white edging, or a white edging with a thin black outline, two G-2s (numbers 10 and 11) only had white surfaces on the basic colour of the aircraft, without the black interior of the cross. The only known numbers on G-versions were: "< 1", "<<1", a white "5", a yellow "13", a yellow "12", a black "10", a black "4", a black "5", a black "6", a black "7", "8", "11", "2", "17", and "9", (colours not known). Upon joining the formation, some aircraft performed missions for a while with factory numbers (e.g. G-2 GT + WM). These numbers could sometimes be discerned under the camouflage colours.

Versions G-10 and G-14 were used in Croatia too. They were painted according to the standard scheme in the final phase of the war – the upper surfaces were in colours RLM 81 Brauniviolet and RLM 82 Hellgrün, and RLM 76 on the lower and lateral surfaces. The colour of the lower surfaces came up very high on the fuselage, right to the ridge. Blotches of RLM 81 and 82 were painted on the lateral sides. The tip of the nose, the lower wingtips, and the rudder were yellow. The yellow band around the fuselage was repainted in a green colour. Certain sources give a scheme in which colours RLM 75 and RLM 82 were used for the upper surfaces. The national markings on these versions was a black trefoil on a white cross, while the tail had the state coat-of-arms with the braided knotwork design, and black letter "U" that had been erased in some cases. The fin also had this marking. Type G-10, with a black number 4 below the cockpit, had an outline of an animal's head (probably a goat's) framed in a rectangle, with a dashed line. The emblem was drawn in the basic fuselage colour. It was probably yellow or white. Other known examples of these versions were: 2103, 2105, and, a black "10".



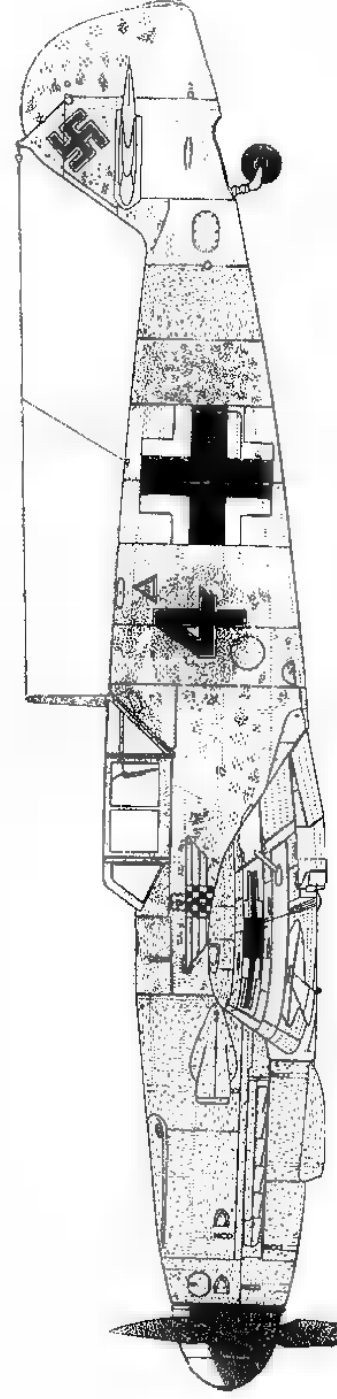
Bf 109 G-2 crni "1". Znak Legije obrubljen je crnom bojom, a broj "1" bijelom.

Bf 109 G-2, black "1". The Legionary markings are outlined in black and the number "1" has a white border.



Bf 109 G-2 isti zrakoplov raniji (crni "1") na kojemu je unutrašnjost križa prebojena crnom bojom, a ispred broja "1" dodana je oznaka "<<" s bijelim obrubom.

Bf 109 G-2. The same aircraft with the cross blackened in, and "<<" in a white border applied to the left of the black "1".



Bf 109 G-2 crni "4". Broj "4" je obrubljen bijelom bojom, a znak Legije crnom.

Bf 109 G-2, black "4". The number "4" has a white border, and the Legionary markings have a black border.



RLM 75



RLM 74



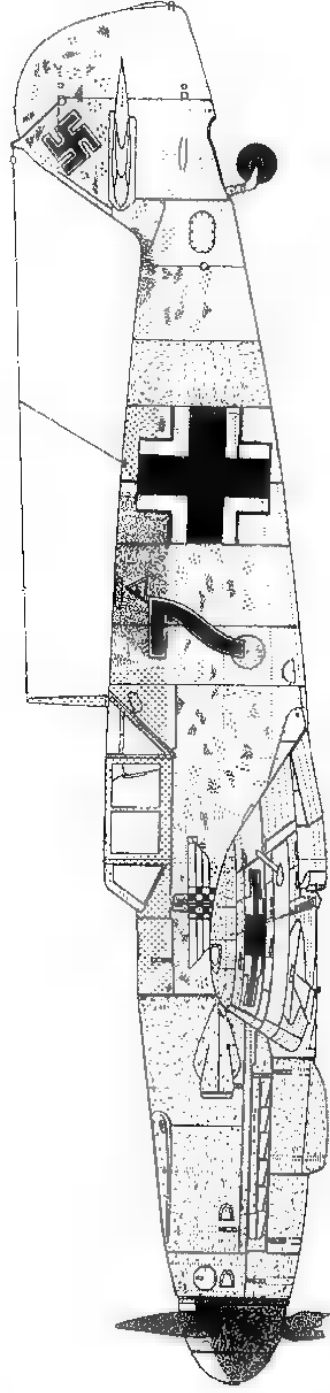
RLM 70



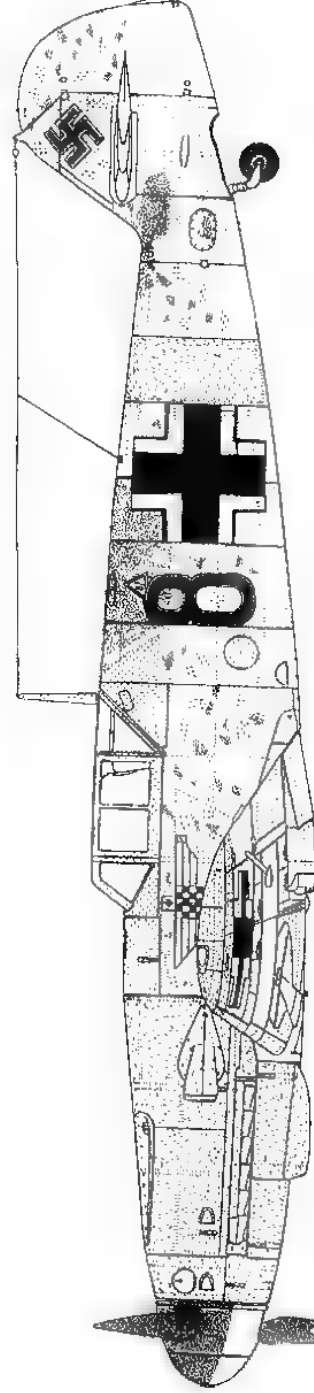
RLM 04



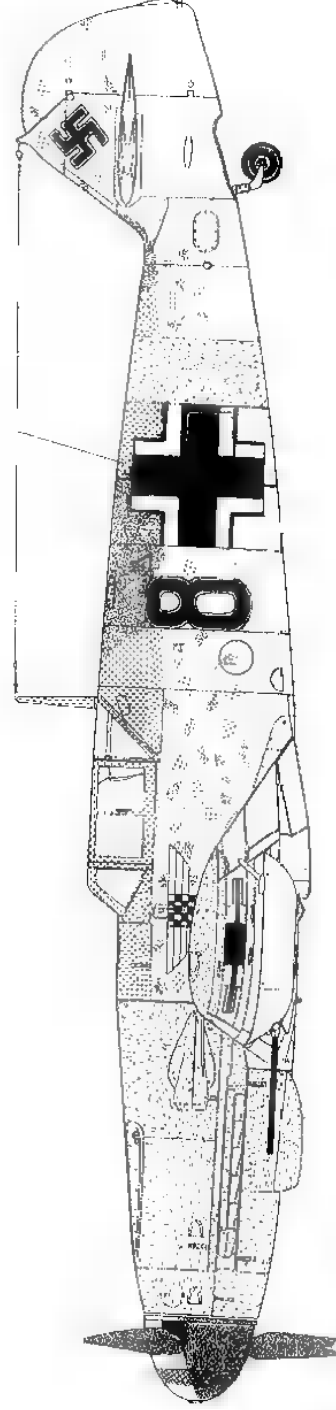
CRNA/BLACK



Bf 109 G-2 crni "7". Križ na trupu zrakoplova je obrubljen bijelom i crnom bojom, ■ broj "7" bijelom.
Bf 109 G-2, black "7". The cross on the fuselage is bordered in both black & white, and the number "7" in white only.



Bf 109 G-2 crni "8". Broj "8" je obrubljen bijelom bojom.
Bf 109 G-2, black "8". The number "8" is bordered in white.



Bf 109 G-2/R-6 crni "8". Na poklopcu elise ostaci su prjašnje boje, vjerojatno crvene, broj "8" je obrubljen bijelom bojom.
Bf 109 G-2/R-6, black "8". Part of the old coloring scheme is visible on the spinner and the number "8" has a white border.



RLM 75



RLM 74



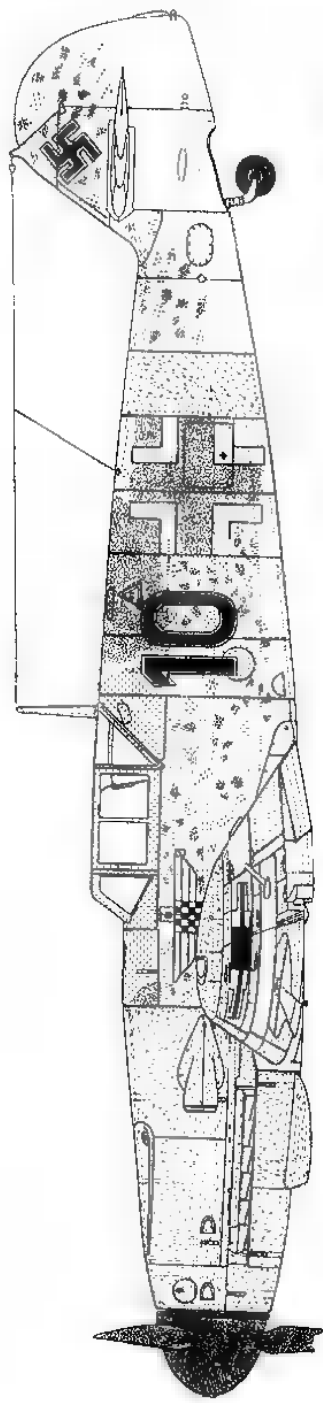
RLM 70



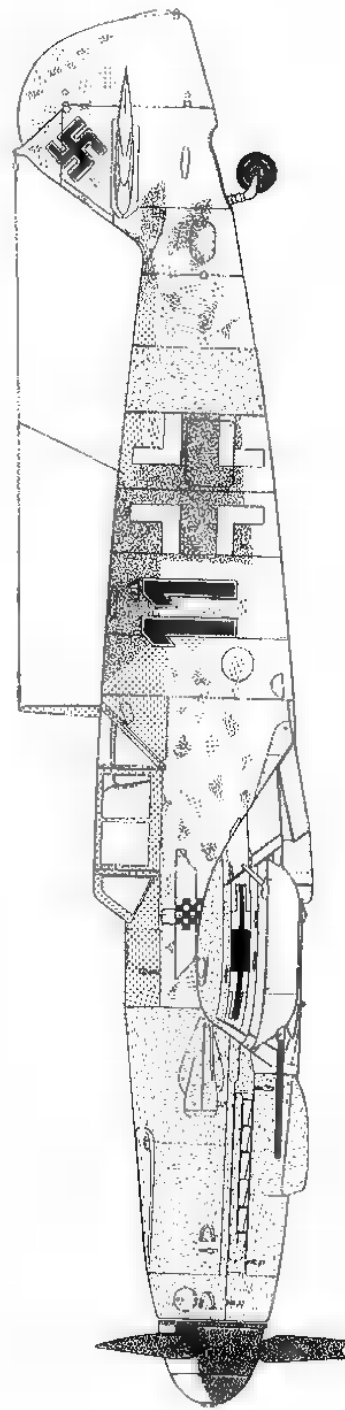
RLM 04



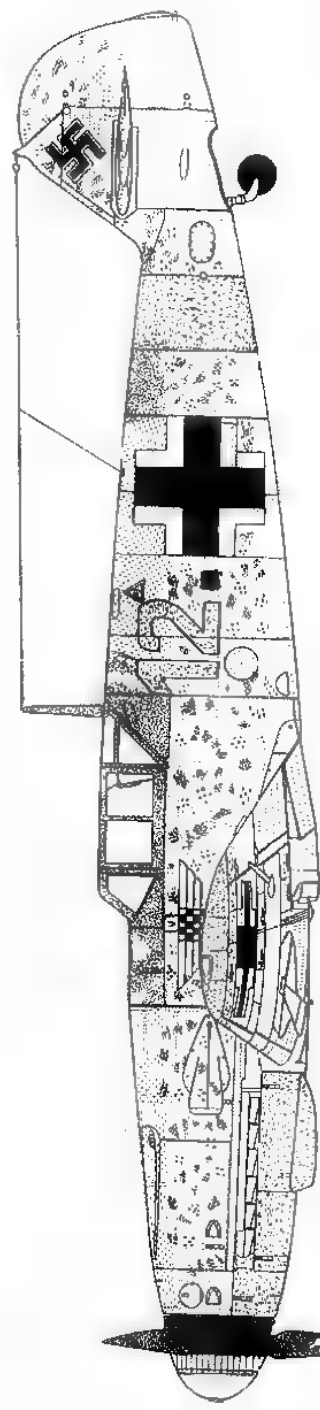
CRNA/BLACK



Bf 109 G-2 crni "10". Poklopac elise je crnozelene boje (RLM 70), a broj "10" je obrubljen bijelom bojom.
Bf 109 G-2, black "10". The spinner is painted dark-green (RLM 70) and the number "10" has a white border.



Bf 109 G-2/R-6 crni "11". Križ na trupu ima samo bijela polja, broj "11" je obrubljen bijelom bojom, a znak legije je nedovršen.
Bf 109 G-2/R-6, black "11". The Legionary markings are incomplete. The Cross on the fuselage only has white wedges, and the number "11" has a white border.



■ 109 G-2 žuti "12". Broj 12 je obrubljen crnom bojom. Krila na znaku legije su srebrne boje.
Bf 109 G-2, yellow "12". The number "12" is bordered in black, and the wings of the Legionary markings are silver.



RLM 75



RLM 74



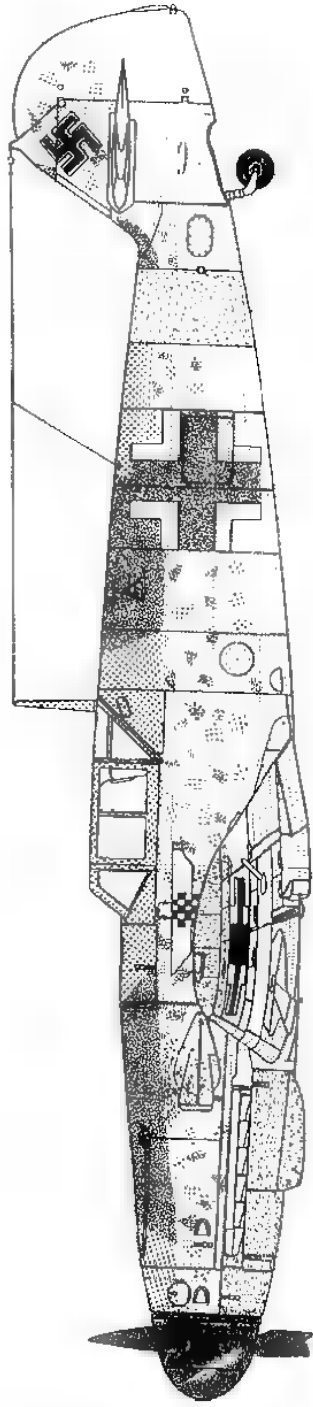
RLM 70



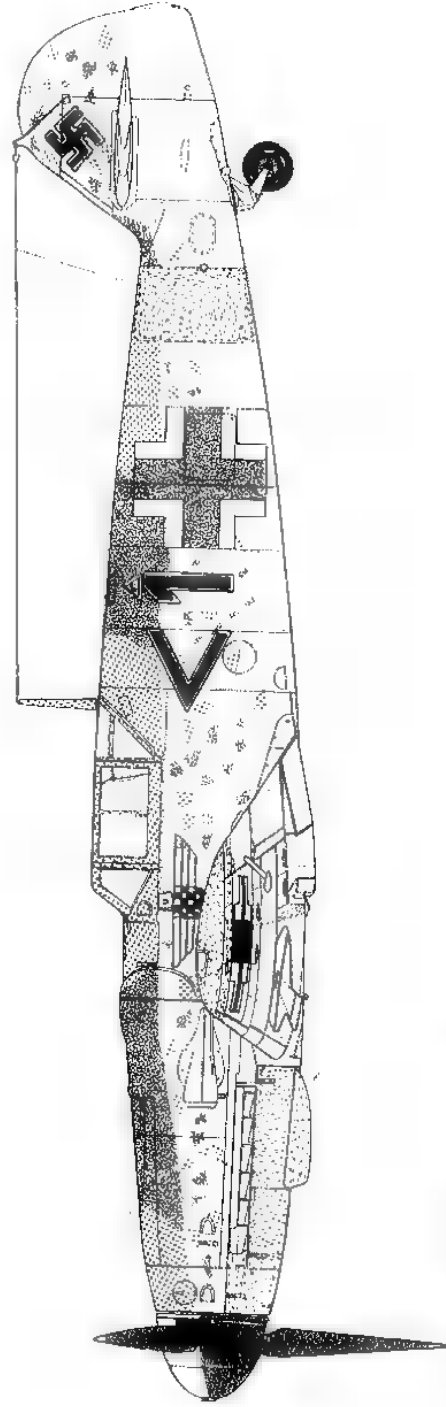
RLM 04



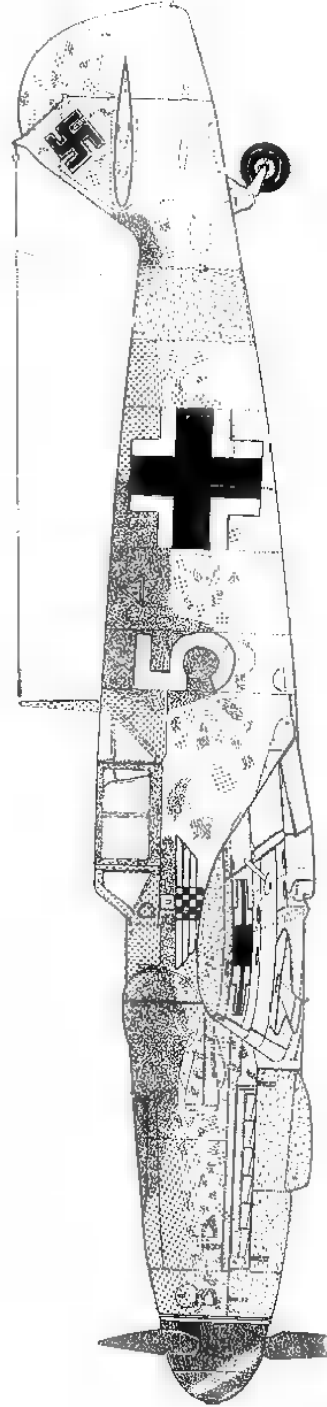
CRNA/BLACK



Bf 109 G-4. Znak Legije je nedovršen, ■ broj na trupu nije nacrtan
Bf 109 G-4. A number has not been applied to the fuselage and the Legionary markings are incomplete.



Bf 109 G-6 crni "<1". Križ na trupu ima samo bijela polja.
Bf 109 G-6, black "<1". The cross on the fuselage has only white wedges.



Bf 109 G-6 bijeli "5". Na poklopcu elise je bijela spirala.
Bf 109 G-6, white "5". A white spiral pattern has been applied to the spinner.



RLM 75



RLM 74



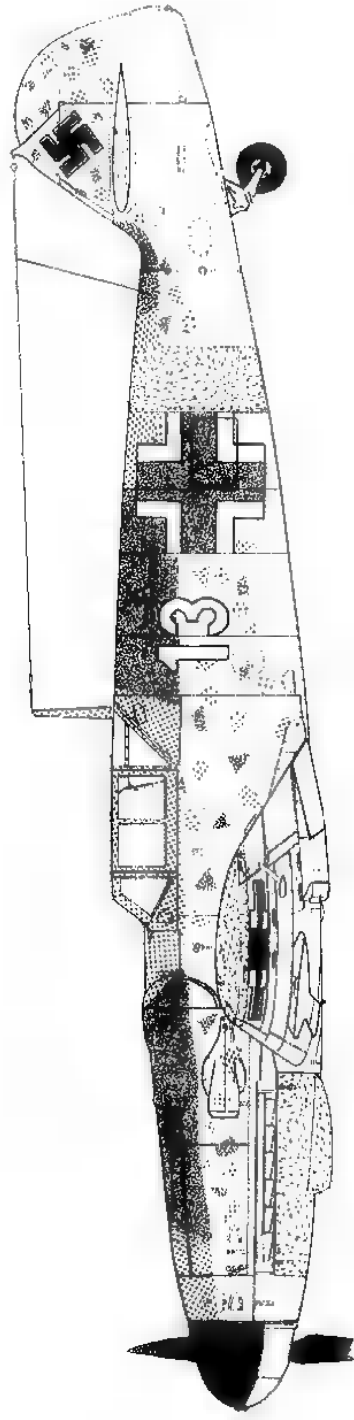
RLM 70



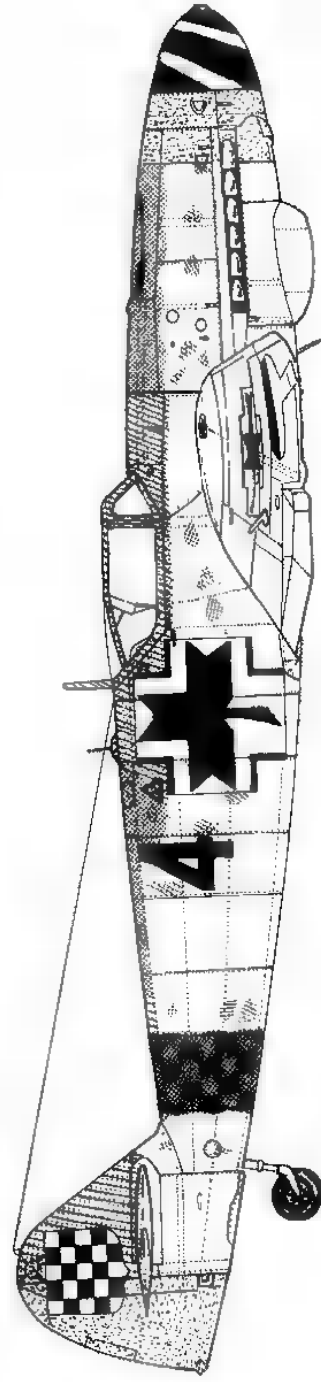
RLM 04



CRNA/BLACK



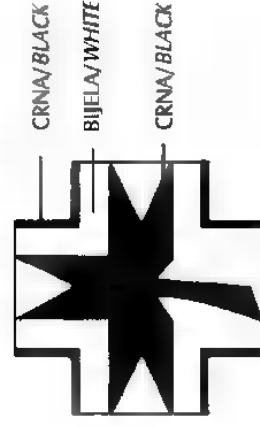
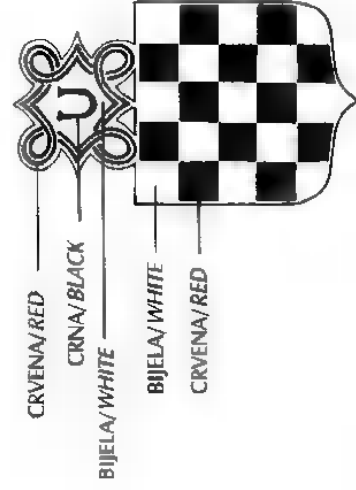
Bf 109 G-6 bijeli "13". Križ na trupu ima samo bijela polja, a znak Legije nije nacrtan
Bf 109 G-6, white "13". The cross on the fuselage has only white wedge and the Legionary markings are incomplete.



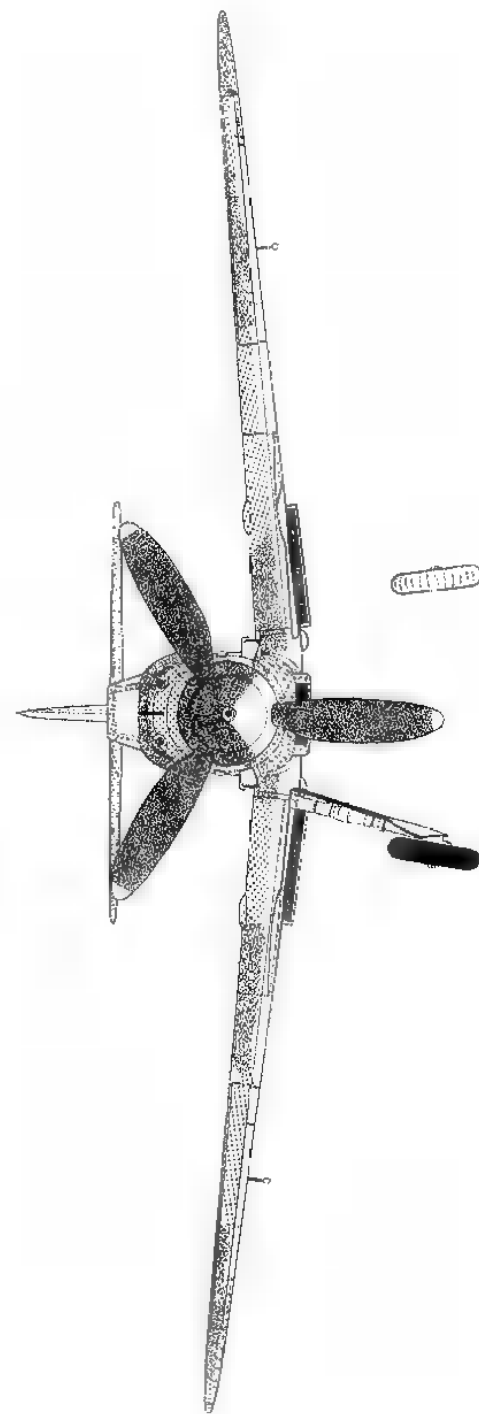
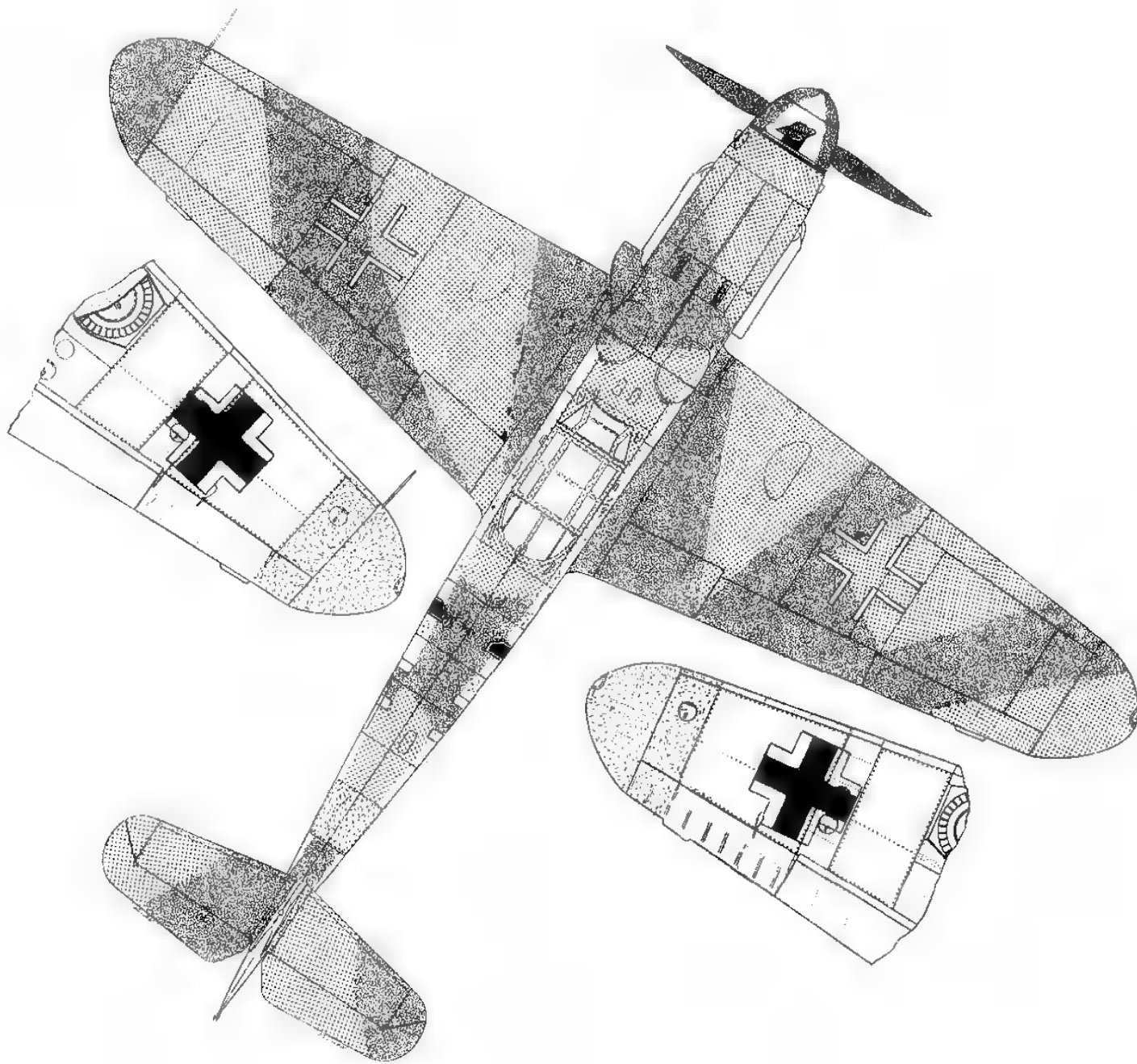
Neidentificirana tamnozeleno boja
Unconfirmed shade of dark-green



Bf 109 G-10 crni "4".
Bf 109 G-10, black "4".



NAPOMENA: Donje i bočne strane svih prikazanih zrakoplova su u boji RLM 76.
NOTE: On all aircraft shown, the underbelly and sides are painted in RLM 76.



Bf 109 G-6 crml "c1".

Bf 109 G-6, black "c1".

Dornier Do 17 ■ inačica korištena je u Hrvatskoj. U nekim člancima objavljenim na Zapadu navodi se da su letjelice na gornjim površinama obojene tamnozeleno (RLM 71) te da na nosu ispod kabine imaju znak koji je korišten na inačicama Z-2 na Istočnoj bojišnici. Takve fotografije autori nisu pronašli. Na dostupnim fotografijama može se sa sigurnošću tvrditi da su u dvobojnoj maskirnoj shemi na gornjim površinama crnozeleni i tamnozeleni (RLM 70 i 71), te da na nosu nemaju oznaku (državni grb s tropletom i slovom "U"). Donje površine su svijetloplave (RLM 65). Državni je grb na krilima i vertikalnom stabilizatoru. Žuta je traka oko zadnjeg dijela trupa, kao i na donjim površinama vrhova krila. Četveroznamenasti registarski broj je crne boje. Spinneri su crnozeleni (RLM 70). Najmanje jedan primjerak ima bijeli spinner sa crnom spiralom.

K inačica korištena je također samo u Hrvatskoj. Na osnovi dostupnih fotografija, mišljenje je autora da su na gornjim površinama obojeni samo jednom nijansom zelene boje. Na nekim se fotografijama može jasno vidjeti da je boja izrazito oštećena (oguljena) na nosnom dijelu i vertikalnom stabilizatoru. Državni je grb na standardnim položajima, kao i žute površine oko trupa i vrhova krila. Primjerak koji nosi registarski broj 0108 tamne boje (vjerojatno crne) ima broj obrubljen bijelom bojom, što je neuobičajeno.

Z-2 inačica u početku je korištena samo na Istočnom bojištu. Bojena je uobičajenom shemom – gornje su površine trupa i krila crnozelene (RLM 70, Schwartzgrün) i tamnozelene (RLM 71 Dunkelgrün), a donje su površine svijetloplave (RLM 65, Hellblau). U zimskom razdoblju pojedini su primjerci na gornjim površinama prebojeni bijelom bojom ispod koje se djelomično nazire prijašnja dvobojna shema (npr. 5K+BU). Na zadnjem je dijelu trupa žuta traka (RLM 04). Primijećene su dvije različite širine tih traka (npr. na A1+DZ je uža nego na A1+BZ). Donje površine vrhova krila su također žute. Spinneri elisa su različito bojeni. Ima jednobojnih crnozelених (RL 70) i trobojnih (korijen spinera je u crnozelen, a ostatak crveno-bijeli s vodoravnom podjelom između boja).

Detalj po kojem su se razlikovali hrvatski Dornieri je oznaka Legije na nosu s objiju njegovih strana. Oznaka se sastoji od hrvatskoga grba iznad kojega je troplet sa crnim slovom "U". Crne crte tropleta nacrtane su na bijeloj podlozi na dva načina: na nekim su primjercima pune, dok se na drugim jasno vidi da su isprekidane, vjerojatno od šablona kojim se nanosila oznaka. Također je uočeno da pojedine oznake imaju tanki bijeli obrub na crvenim poljima državnoga grba, a druge to nemaju. Mišljenje je autora da su se prilikom nanošenja oznaka koristile različite šablone, zbog čega su nastale takve varijacije. Dornier s registarskom oznakom

The Dornier Do 17 E version was used in Croatia, and although some articles published in the West state that their upper surfaces were painted in colour RLM 71, and that they had a sign on the nose below the cockpit, that was used on machines of version Z-2 on the Eastern Front, the author has not found such photographs. Based on available photographs, it can be said with certainty that they had a two-colour camouflage scheme on the upper surfaces (RLM 70 and 71), and that they did not have the markings (the national coat-of-arms with the braided knotwork design and letter "U") on the nose. The lower surfaces were in RLM 65. The state coat-of-arms can be found on the wings and on the fin. The yellow band can be found around the rear part of the fuselage and on the lower wingtip surfaces. The four-digit serial number was black. The spinners were in colour RLM 70. At least one machine had a white spinner with a black spiral.

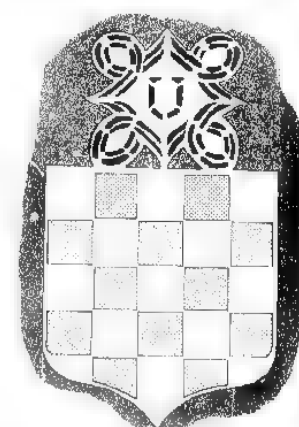
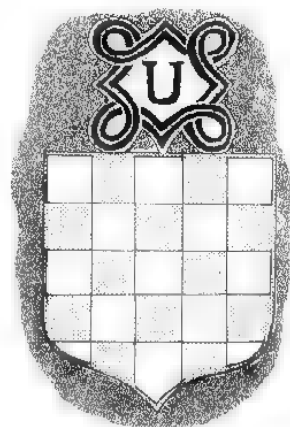
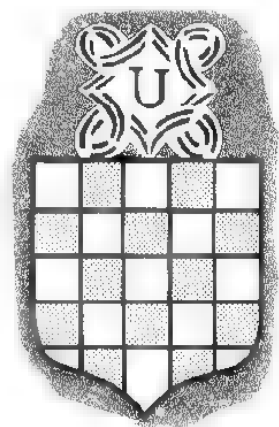
K version was also used only in Croatia. Based on available photographs, it is the author's opinion that the upper surfaces were painted in only one shade of green. On some photographs it can clearly be seen that the colour was very damaged (peeled off) on the nose and fin. The state coat-of-arms was in the standard positions, as were the yellow surfaces around the fuselage and on the wingtips. The machine bearing the dark (probably black) serial number 0108, had a white outline around the numbers, which is unusual.






In the beginning, the **Z-2 version** was only used on the Eastern Front. It was painted according to the usual scheme – the upper surfaces of the fuselage and wings in RLM 70 Schwartzgrün and RLM 71 Dunkelgrün, while the lower surfaces were in colour RLM 65 Hellblau. In the winter, the upper surfaces of some machines were repainted in white, under which the earlier two-colour scheme can be partially discerned (e.g. 5K + BU). There was a yellow band in colour RLM 04 on the rear part of the fuselage. Two different widths of these bands have been observed (e.g. on A1 + DZ it is narrower than on A1 + BZ). The lower wingtip surfaces were also yellow. The colours of the propeller spinners varied. There were plain (RL 70) versions and tri-coloured versions (the base of the spinner was in RLM 70, and the rest was red and white, with a vertical division between the colours).

A detail by which Croatian Dorniers were distinguished, was the Legion's emblem on both sides of the nose. The emblem consisted of the Croatian coat-of-arms, above which, there was a braided knotwork design with a black letter "U". The black lines of the braided knotwork design were drawn on a white background in two ways. Sometimes they were full, while on some machines it is obvious that they were dashed, probably from the stencils that were used to draw the emblem. It has

A1+GZ nakon tisućitog leta skupine dobio je na nosu natpis " tisućiti ljet " na bijeloj pravokutnoj podlozi. Na jednoj fotografiji broj malih dimenzija, vjerojatno žute ili bijele boje, na vertikalnom je stabilizatoru iznad kukastog križa. Svi primjerci imaju sve ostale standardne njemačke oznake. Poznate su ove registarske oznake : A1+KZ, A1+EZ, A1+HZ, A1+DZ, A1+BZ, 5K+BU, 5K+HU, A1+FZ, A1+JZ, A1+Z...

Na fotografijama se može vidjeti i jedan tehnički detalj po kojemu se razlikuju. Naime, pojedini primjerci imaju kružnu antenu iznad kabine, a drugi imaju za nju samo postolje. Po dolasku u Hrvatsku s Istočne bojišnice dio je zrakoplova Do 17 Z-2 su u prvo vrijeme pouzdano zadržao prijašnje oznake. Moguće je da su se kasnije oznake i pojedini detalji mijenjali. Zapadni izvori često spominju letjelicu Do 17 Z-2 koja je na kraju rata zatečena u Klagenfurtu, na kojoj su bili crni trolisti i državni grb s tropletom na repu. Prema tim izvorima, primjerak je imao poklopac motora obojen u žuto, te crno-bijelu spiralu na spinneru. Trolisti i grb na takvim mjestima bili bi u skladu sa službenim naredbama o označavanju, ali žuti dio na motoru u to vrijeme nije uobičajen.



CRVENA / RED	
Boja zrakoplova / aircraft colour (RLM 70 ili RLM 71)	
BIJELA / WHITE	
Neidentificirana svijetla boja / Unconfirmed light shade.	
	 CRNA / BLACK

Različite izvedbe znaka legije na zrakoplovima Do 17 Z-2.
Legionary markings on a Do 17 Z-2 aircraft.

also been noticed that certain emblems had a thin white edging around the red squares of the state coat-of-arms, while others did not. The author thinks that various stencils were used to paint the emblems, and that this is why there were so many variations. After the group's thousandth flight, an emblem was drawn on the nose of the Dornier with serial number A1 + GZ, with the words "tisućiti ljet" (thousandth flight), on a white rectangular base. There is a photograph on which a small, probably yellow or white, number can be found on the fin above a swastika. All machines had all other standard German markings. The following serial numbers are known: A1 + KZ, A1 + EZ, A1 + HZ, A1 + DZ, A1 + BZ, 5K + BU, 5K + HU, A1 + FZ, A1 + JZ, and A1 + Z.

Photographs show a technical detail by which Dorniers can be distinguished. Namely, some machines had a circular antenna above the cockpit, while others only had a base. Upon arriving in Croatia, some Do 17 Z-2 aircraft from the Eastern Front definitely kept their former markings, at least initially. It is possible that subsequent markings and certain details were changed. Western sources often mention Do 17 Z-2 aircraft that were found at Klagenfurt at the end of the war, on which there were black trefoils and the state coat-of-arms with the braided knotwork design on the tail. According to these sources, the machine had a yellow painted engine cowling and a black and white spiral on the spinner. The position of the trefoil and the coat-of-arms would have been in accordance with official marking regulations, but the yellow part on the engine was not customary for that time.

Opis crteža

1. **Potez XXV A2** – Nestandardan način označavanja bez registarskog broja na trupu. Cijeli zrakoplov je maslinastozelen (približno FS 34151), kao i većina jednomotornih zrakoplova podrijetlom iz Kraljevine Jugoslavije.
2. **Breguet XIX/7** – Primjerak s motorom Hispano. Državni grb ima crveni obrub.
3. **Rogožarski P.V.T.** – Registarski broj većih dimenzija. Žuti detalji na krilima i trupu još nisu nacrtani.
4. **Rogožarski R-100** – Standardna maslinastozelena boja sa žutim detaljima. Registarski broj manjih dimenzija. Uočava se nosač za bombu od 100 kg.
5. **Fizir FN** – Školski zrakoplov hrvatskog konstruktora Rudolfa Fizira. Registarski broj starog tipa – malih dimenzija. U kasnijem razdoblju dimenzije brojeva su znatno povećane, a osim u crnoj pojavljuju se i u žutoj boji. Pojedini primjerci na središnjem dijelu trupa dobivaju i bijeli broj unutar jata još većih dimenzija od registarskog broja.
6. **SIM X** – Školski visokokrilni zrakoplov za naprednu pilotsku izobrazbu konstruktora Sime Milutinovića. Zadržao je maslinastozelenu boju iz Kraljevine Jugoslavije.
7. **SIM XI** – Civilna shema bojenja iz Kraljevine Jugoslavije zamijenjena je jednom nijansom zelene boje. Postoji mogućnost da je korištena maslinastozelena boja iz starih zaliha Kraljevine ili jedna od nijansi zelenih boja proizvedenih u samoj Hrvatskoj (tvornica Chromos u Zagrebu).
8. **RWD XIII** – Na nosu srebrno obojenog zrakoplova nacrtan je crtež srednjovjekovne utvrde iz Siska.
9. **Avia BH 33 E** – Zastarjeli češki dvokrilni zrakoplov obojen tamnozelenom bojom. Žuta traka nacrtana oko trupa.
10. **A.V.I.A. FL 3** – Žuti detalji na svjetlozeleno obojenom zrakoplovu (približno FS 34373) još nisu nacrtani.

Description of Plates

1. **Potez XXV A2.** A non-standard marking made with no serial number on the fuselage. The whole aircraft was olive-green (approximately FS 34151), as were most single-engine aircraft originating from the Kingdom of Yugoslavia.
2. **Breguet XIX/7.** A machine with a Hispano engine. The state coat-of-arms had a red border.
3. **Rogožarski P.V.T.** A larger serial number. The yellow details on the wings and fuselage had not been applied yet.
4. **Rogožarski R-100.** The standard olive-green colour with yellow details. A small serial number. A carrier for a 100 kg bomb is noticeable.
5. **Fizir FN.** A training aircraft by the Croatian manufacturer Rudolf Fizir. An older type of serial number. In the later period, the dimensions of the numbers were increased significantly, and in addition to black, they also appeared in yellow. Within the squadron, certain machines received a white number on the central part of the fuselage, that was even larger than the serial number.
6. **SIM X.** A high-wing training aircraft, for advanced pilot training constructed by Sime Milutinović. It retained the olive-green colour from the Kingdom of Yugoslavia.
7. **SIM XI.** The civilian colouring scheme from the Kingdom of Yugoslavia had been replaced by a green tone. There is a possibility that olive-green colour from the Kingdom's old stocks was used, or a green tone that was produced in Croatia proper (the Chromos Factory in Zagreb).
8. **RWD XII.** On the nose of the silver coloured aircraft there was a drawing of the mediaeval fortress in Sisak.
9. **Avia BH 33 E.** An obsolete Czech biplane painted in dark green. There was a yellow band around the fuselage.
10. **A.V.I.A. FL 3.** The yellow details on the light-green aircraft (approximately the

11. **Salamandra** – Poluzatvoreni tip jedrilice za početnu izobrazbu. Nosila je državni grb s crvenim obrubom na svim površinama krila i kormilu pravca. Crni natpis "S" označava tip jedrilice. Na samom dnu kormila pravca nalazi se još jedan natpis vrlo malih dimenzija koji do sada nije identificiran, te na crtežu nije nacrtan.
12. **Zögling 35** – Jedrilica za početnu izobrazbu koja je kao i sve ostale jedrilice zadržala prirodne boje drvenih materijala i lakiranog lanenog platna od kojih je napravljena. Crni natpis "Z 35" označava tip jedrilice, a "I 14" je oznaka dotične jedrilice. Sve jedrilice Zögling nosile su na nosaču zatega crni natpis "RODA". Državni grb nije nacrtan na ovom tipu jedrilice.
13. **Grunau Baby** – Državni grb s crvenim obrubom nalazio se samo na kormilu pravca.
14. **Komar bis** – Potpuno zatvorena jedrilica za naprednu fazu izobrazbe, na kojoj primjećujemo bijele površine na vrhu nosa i vertikalnog stabilizatora te natpis "K bis". Državni grb na kormilu pravca ima crveni obrub.
15. **Morane Saulnier MS 406 C-1** – 1. zrakoplovna luka Zagreb, 21. jato, 1944. godine. Maskirna shema korištena na lovcima Luftwaffe, RLM 71 Dunkelgrün, RLM 02 Grau na gornjim površinama te RLM 65 Hellblau na donjim površinama s mrljama RLM 71 i 02 na bokovima trupa. Državni grb ima crveni obrub. U Luftwaffe ovaj zrakoplov nosio je oznaku TP+ZM.
16. **Fiesler Fi 167 A-0** – 19. jato, Zagreb, siječanj 1945. Cijeli zrakoplov prebojen je nijansom tamnozeleno boje. Na trupu su nanese maskirne mrlje tamnije boje. Na osnovi sačuvanih fotografija može se uočiti da su na gornjim površinama krila vjerojatno nanesena uglata maskirna polja na osnovnu boju, te da se i na ovom dijelu zrakoplova nalaze tamnije mrlje. Donje površine su svijetloplave.
17. **Macchi MC 202** – Rekonstrukcija izgleda zrakoplova iz Serije XII, MM 91910. Kako na postojećim fotografijama nije moguće utvrditi sve detalje, postoji mogućnost da je umjesto hrvatskog trolista na trupu njemački križ. U tom slučaju bi se na vertikalnom stabilizatoru nalazio kukasti križ umjesto hrvatskoga državnog grba. Maskirna shema je zadržana iz talijanskog zrakoplovstva.

colour FS 34373) had not been applied yet.

11. **Salamander**. A semi-enclosed type of glider for basic training. It bore the state coat-of-arms with a red border on all wing surfaces, and on the rudder. The black inscription "S" denotes the glider type. At the very foot of the rudder there is another very small inscription that has not been identified, as yet, and has not been drawn on the plate.
12. **Zögling 35**. A glider for basic training which like all other gliders, had retained the natural colours of the wooden materials and the varnished flaxen canvas, from which it had been built. The black inscription "Z 35", denotes the glider type, and the "I 14" is the marking of the actual glider. All the Zögling gliders bore the black inscription "RODA" (Stork) on the load carrier. The state coat-of-arms was not applied on this type of glider.
13. **Grunau Baby**. The state coat-of-arms with a red border could be found only on the rudder.
14. **Kormar bis**. A completely enclosed glider for advanced phases of training, on which we notice white surfaces on the tip of the nose and the rudder, and the inscription "K bis". The state coat-of-arms on the rudder had a red border.
15. **Morane Saulnier MS 406 C-1**, 1st Air Base Zagreb, 21st Squadron, 1944. The camouflage scheme used on Luftwaffe fighters: RLM 71 Dunkelgrün, RLM 02 Grau on the upper surfaces, and RLM 63 Hellblau on the lower surfaces, with blotches of RLM 71 and 02 on the sides of the fuselage. The state coat-of-arms had a red border. In the Luftwaffe, this aircraft bore the marking TP+ZM.
16. **Fiesler Fi 167 A-0**. 19th Squadron, Zagreb, January 1945. The entire aircraft was painted a tone of dark green. On the fuselage, there were darker camouflage blotches. Based on surviving photographs, one can notice that square camouflage areas had probably been painted over the basic colour on the upper wing surfaces, and that these parts of the aircraft also have darker blotches. The lower surfaces were light blue.
17. **Macchi MC 202**. A reconstruction of the appearance of the aircraft from Series XII, MM 91910. Since it is not possible to determine all the details from available photographs, it is possible that there was a German cross on the fuse-

18. **Messerschmitt Bf 109 G-10** – Standardna shema bojenja Luftwaffe za posljednju fazu rata, RLM 81 Braunviolet, RLM 82 Hellgrün te RLM 76 Lichtblau. Žuta traka oko trupa je prebojena.
19. **Messerschmitt Bf 109 G-14** – Maskirna shema RLM 82 Hellgrün, RLM 75 Grauviolet i RLM 76 Lichtblau. Žuta traka oko trupa je prebojena.
20. **Messerschmitt Bf 110 G-2** – Cijeli zrakoplov je obojen nijansom svijetle boje, vjerojatno RLM 76. Sustav označavanja iz završne faze rata.
21. **Dornier Do 17 E** – Dvobojna maskirna shema gornjih površina RLM 70/71, s RLM 65 bojom na donjim površinama.
22. **Dornier Do 17 K** – Gornje površine su u nijansi tamnozelene boje, a donje su svijetlo plavo-sive. Boja je na mnogim mjestima znatno oštećena. Postoji mogućnost da je zadržao boju iz Kraljevine Jugoslavije, jer se ovaj tip zrakoplova licencno proizvodio u Kraljevu. Svi Dornieri koji su stizali iz Njemačke imali su dvobojnu maskirnu shemu.
23. **Dornier Do 17 Z-2** – Mogući izgled Do 17 Z-2 iz završne faze rata korištenog u samoj Hrvatskoj. Maskirna shema je standardna, RLM 70/71/65. Rekonstrukcija je rađena na osnovi do sada objavljenih radova. S obzirom na novi sustav označavanja iz završne faze rata, žuti detalji na krilima, trupu i motorima u tom periodu ne bi trebali postojati, jer se ranijom naredbom tražilo njihovo uklanjanje.
24. **Messerschmitt Bf 109 E-4** – III/JG 52, Rusija, 1941./42. godine. Neuobičajena maskirna shema za jednomotorne lovce koja se vjerojatno sastojala od boje RLM 76, na koju su nanese maskirne crte RLM 75 (ili RLM 74 Graugrün).
25. **Messerschmitt Bf 109 G-2** – 15(Kroat) Staffel/JG 52, Rusija 1942. godine. Standardna maskirna shema RLM 74/75/76. Obratiti pozornost na nedovršeni znak Legije i osam oznaka pobjeda na kormilu pravca.
26. **Messerschmitt Bf 109 G-2/R6** – 15(Kroat) Staffel/JG 52, Rusija 1942./43. godine. Maskirne mrlje RLM 74/75 na trupu većih dimenzija, znak Legije nedovršen.
27. **Messerschmitt Bf 109 G-5** – 15(Kroat) Staffel/JG 52, Rusija, uzletište Kerč, 1943.

lage, instead of the Croatian trefoil. In this case, there would have been a swastika on the rudder, instead of the Croatian coat-of-arms. The camouflage scheme had remained from the Italian Air Force.

18. **Messerschmitt Bf 109 G-10.** The standard Luftwaffe colouring scheme at the end of the war: RLM 81 Braunviolet, RLM 82 Hellgrün, and RLM 76 Lichtblau. The yellow band around the fuselage had been repainted.
19. **Messerschmitt Bf 109 G-14.** Camouflage scheme RLM 82 Hellgrün, RLM 75 Grauviolet, and RLM 76 Lichtblau. The yellow band around the fuselage had been repainted.
20. **Messerschmitt Bf 110 G-2.** The entire aircraft was is painted in one tone of a light colour, probably RLM 76. The marking system was that of the final phase of the war.
21. **Dornier Do 17 E.** A two-colour RLM 70/71 camouflage scheme of the upper surfaces with colour RLM 65 on the lower surfaces.
22. **Dornier Do 17K.** The upper surfaces were in one tone of dark green and the lower surfaces are light blue-grey. The paint was severely damaged in many places. There is a possibility that it had kept the colours from the Kingdom of Yugoslavia, because this aircraft was manufactured under licence in Kraljevo. All the Dorniers that arrived from Germany had a two-colour camouflage scheme.
23. **Dornier Do 17 Z-2.** The possible appearance of the Do 17 Z-2 that was actually used in Croatia in the final phase of the war. The camouflage scheme was the standard one, RLM 70/71/65. This reconstruction is based on the material that has been published so far. Considering the new marking system in the final phase of the war, the yellow details on the wings, fuselage, and engine, should not have existed in this period, as a previous order had directed their removal.
24. **Messerschmitt Bf 109 E-4, III/JG 52, Russia, 1941/42.** An unusual camouflage scheme for single-engine fighters that probably consisted of colour RLM 76, over which, camouflage lines were painted in RLM 75 (or RLM 74 Graugrün).

godine. Na standardnoj maskirnoj shemi nalazi se velika tamna površina na središnjem dijelu trupa kojom je prebojena ranija oznaka. Na istoj se nalazi nacrtana kontura brojke "5". Spinner je bijele boje.

28. **Messerschmitt Bf 108 TAIFUN** – 15(Kroat) Staffel/JG 52, Rusija 1942. godine. Maskirna shema se sastoji od boja RLM 70 Schwartzgrün i RLM 71 Dunkelgrün s RLM 65 Hellblau na donjim površinama. Znak Legije je potpuno nacrtan. Položaj kukastog križa je pretpostavljen.

25. **Messerschmitt Bf 109 G-2**, 15th (Kroat) Staffel/JG 52, Russia, 1942. The standard RLM 74/75/76 camouflage scheme. Note the incomplete Legionary markings and eight "kill" marks on the rudder.

26. **Messerschmitt Bf 109 G-2/R6**, 15th (Kroat) Staffel/JG 52, Russia, 1942/43. Large RLM 74/75 camouflage blotches on the fuselage, and incomplete Legionary markings.

27. **Messerschmitt Bf 109 G-5**, 15th (Kroat) Staffel/JG 52, Russia, airfield Kerč, 1943. On the standard camouflage scheme, on the central part of the fuselage, the previous markings have been repainted by a large dark area. It also had an outline of the number "5". The spinner was white.

28. **Messerschmitt Bf 108 TAIFUN** 15th (Kroat) Staffel/JG 52, Russia, 1942. The camouflage scheme consisted of colours RLM 70 Schwartzgrün and RLM 71 Dunkelgrün with RLM 65 Hellblau on the upper surfaces. The Legionary markings are complete.



Potez XXV A2



Brequet XIX/7



Rogožarski P.V.T.



Rogožarski R-100.



Fizir FN



SIM X



SIM XI



RWD XIII



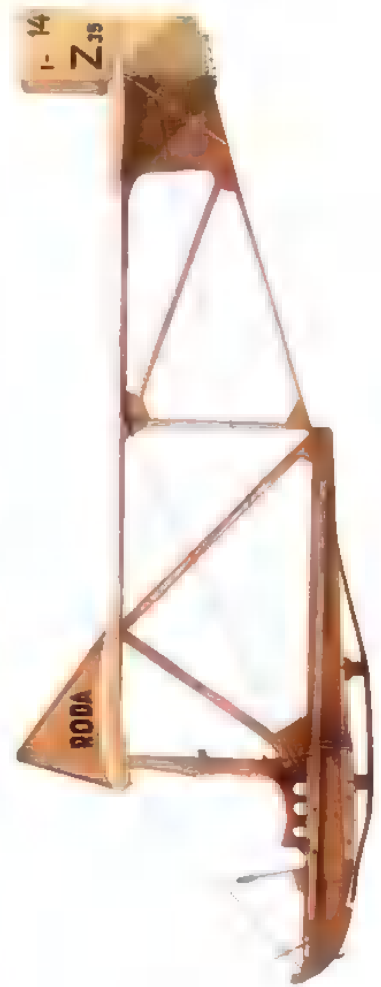
Avia BH 33 E



A.V.I.A. FL 3



Salamandra



Zögling 35



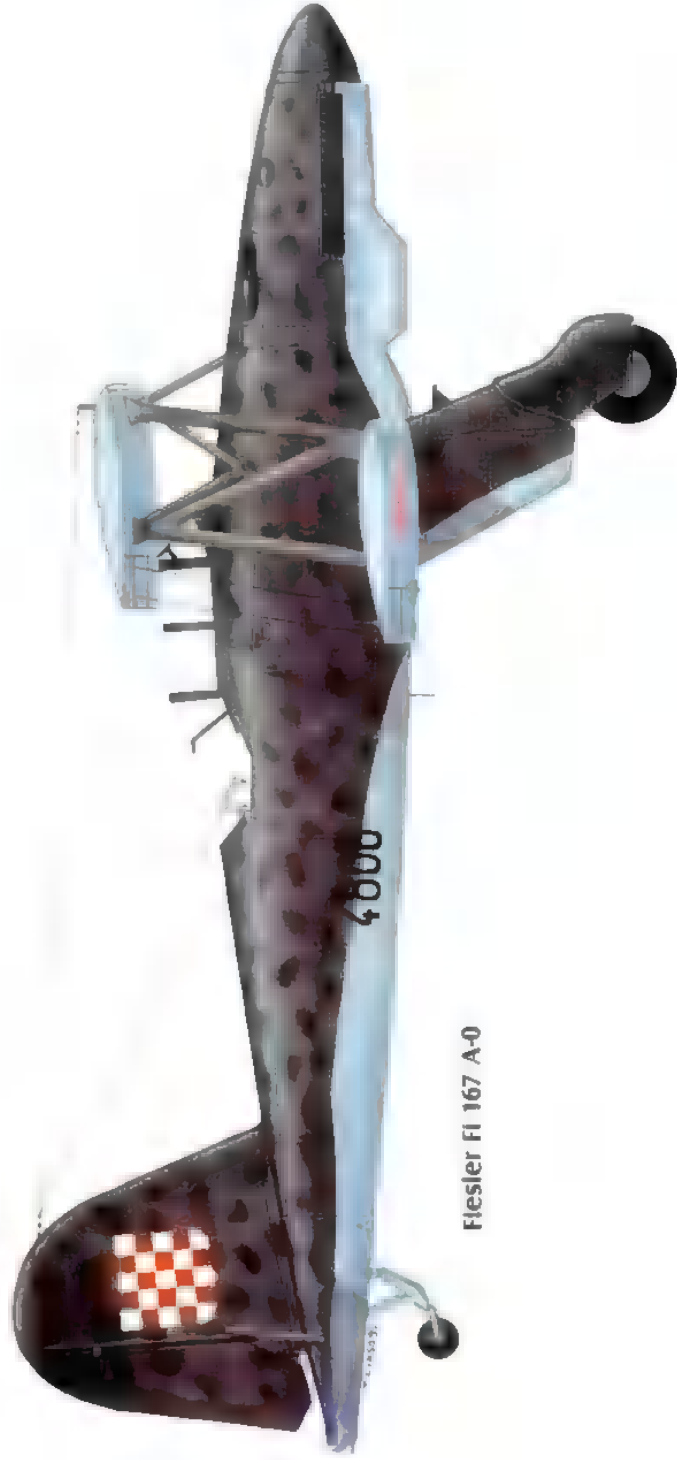
Grunau Baby



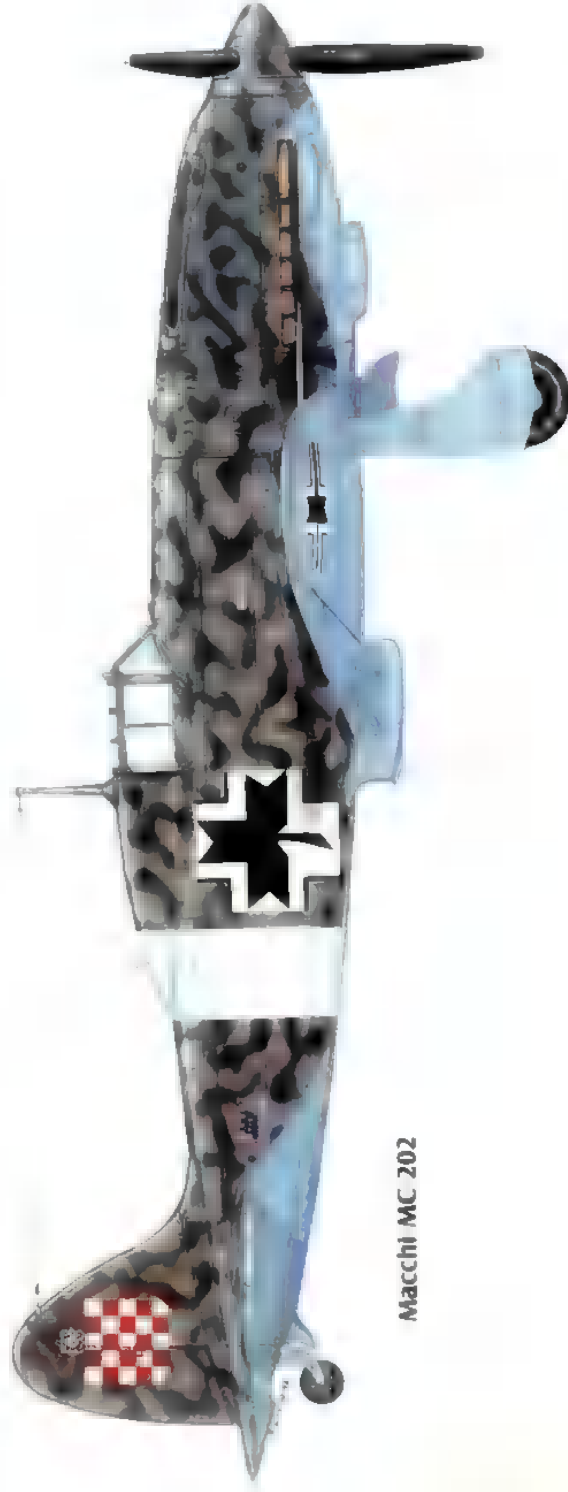
Komar bis



Morane Saulnier MS 406 C-1



Fiesler Fi 167 A-0



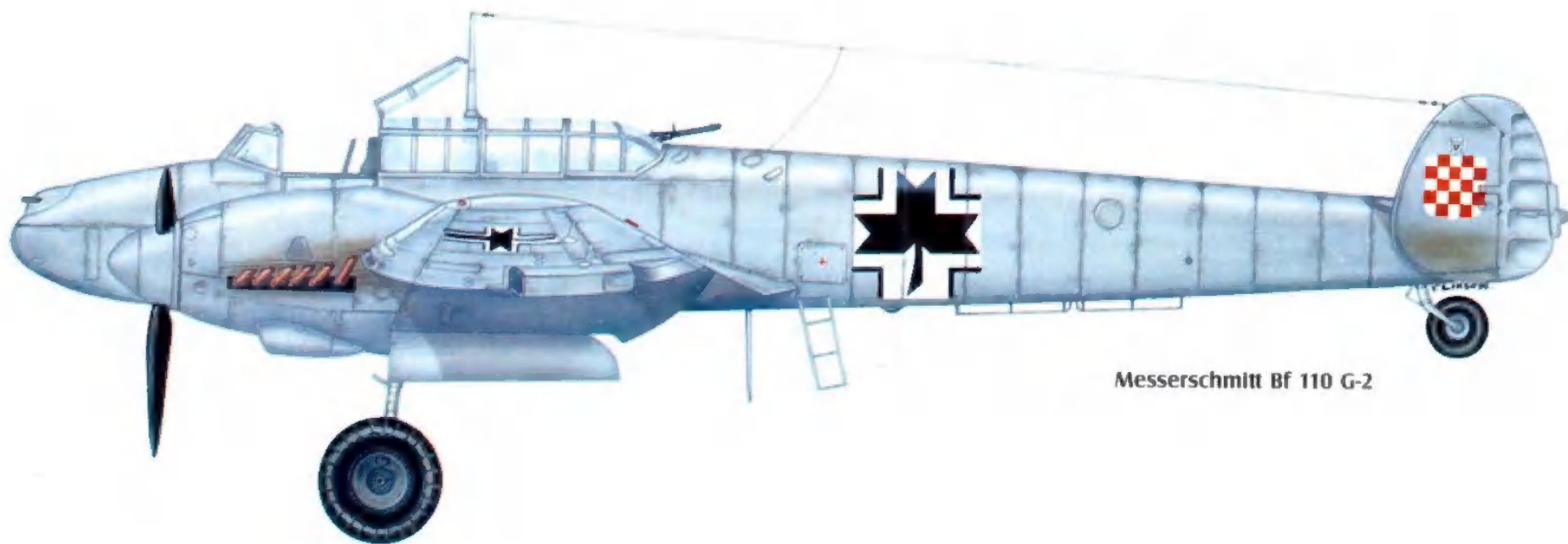
Macchi MC 202



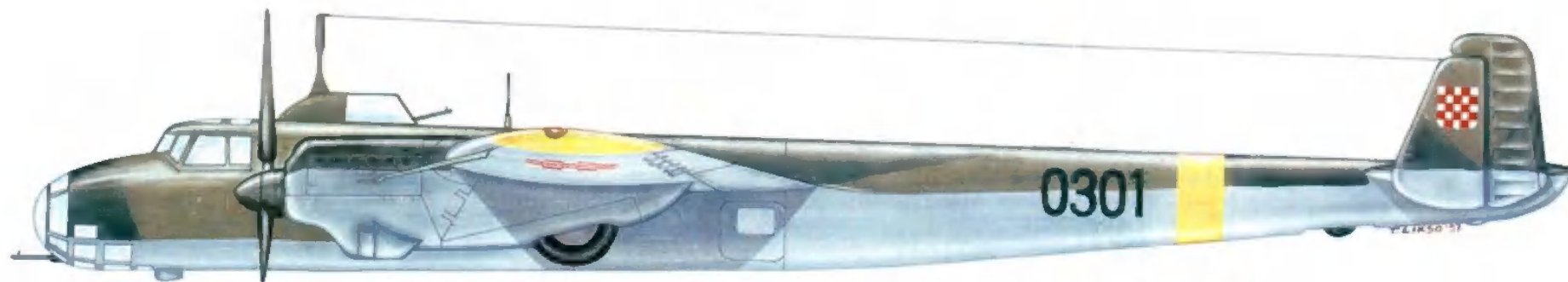
Messerschmitt Bf 109 G-10



Messerschmitt Bf 109 G-14



Messerschmitt Bf 110 G-2



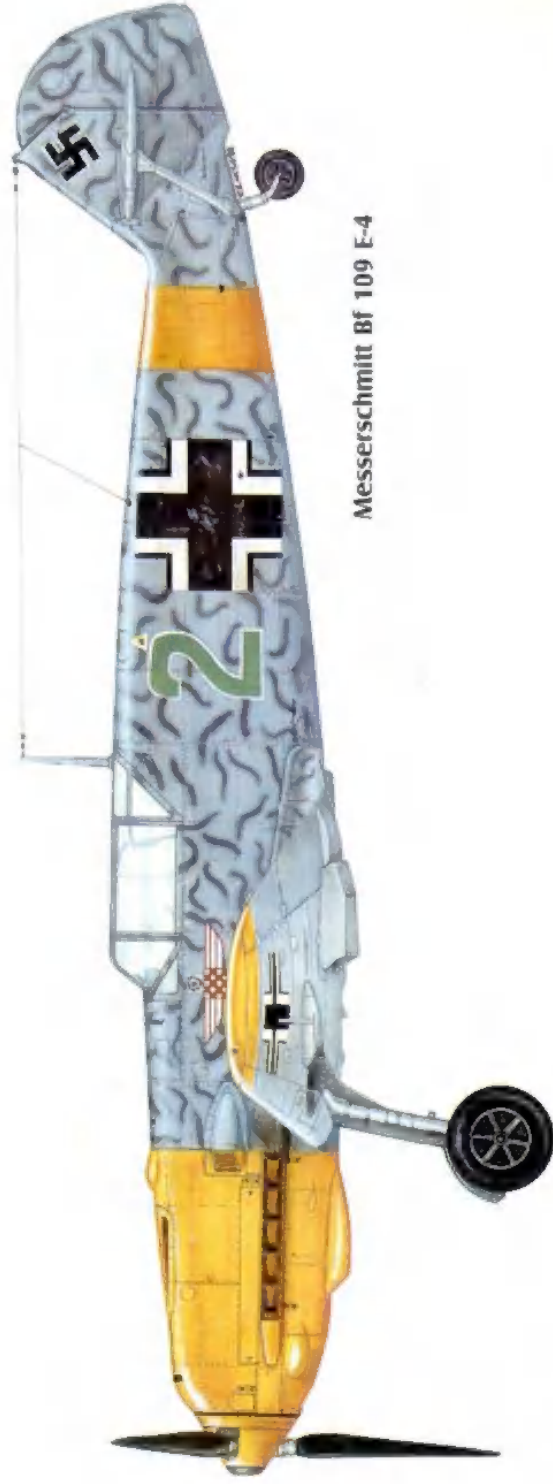
Dornier Do 17 E



Dornier Do 17 K



Dornier Do 17 Z-2



Messerschmitt Bf 109 E-4



Messerschmitt Bf 109 G-2



Messerschmitt Bf 109 G-2/R6



Messerschmitt Bf 109 G-5



Messerschmitt Bf 108 TAIFUN

ISBN 953976980-9



A – neidentificirani Bf 109 E
from an unidentified Bf 109 E



B – neidentificirani Bf 109 E
from an unidentified Bf 109 E



C – Bf 109 G-2 / R6 crni "11"
Bf 109 G-2 / R6 black "11"



D – neidentificirani Bf 109 G-2 ili G-6
from an unidentified Bf 109 G-2 or G-6



E – neidentificirani Bf 109 G-2
from an unidentified Bf 109 G-2



F – neidentificirani Bf 109 G-2
from an unidentified Bf 109 G-2



G – Bf 109 G-2 crni "10"
Bf 109 G-2 black "10"



H – Bf 109 G-2 crni "<<1"
Bf 109 G-2 black "<<1"



I – Bf 109 G-2 žuti "4"
Bf 109 G-2 yellow "4"